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CANADA

Report by **THE TARIFF BOARD**

Pursuant to the Inquiry Ordered
by the Minister of Finance
respecting

**FRESH AND PROCESSED FRUITS
AND VEGETABLES**

Volume 1 Part II

**COMMODITY REPORTS:
FRESH VEGETABLES**

Reference No. 152



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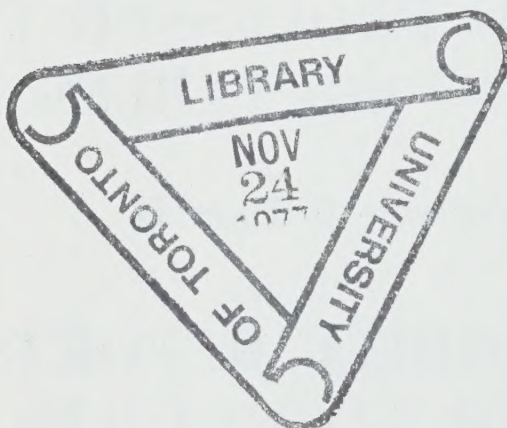
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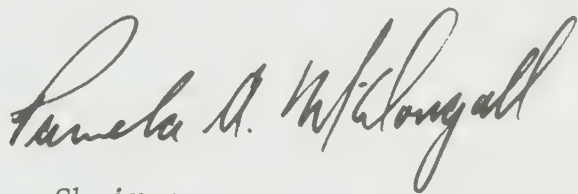
Dear Mr. Macdonald:

I refer to the Honourable John Turner's letter of July 6, 1973, addressed to Mr. L.E. Couillard, former Chairman of the Tariff Board, directing the Tariff Board to make a study and report on specified tariff items in so far as they relate to fresh and processed fruits and vegetables.

I now have the honour to transmit Volume 1, Part II of the Report of the Board, in English and in French. This part contains the individual reports for fresh vegetables which were the basis for the Board's recommendations for these commodities, submitted in Volume 1, Part I. Volume 1, Part III will contain the commodity reports on fresh fruits. Volume 2 will be devoted to processed fruits and vegetables. These will be forwarded to you as soon as they are completed.

A copy of the transcript of the proceedings at the public sittings was forwarded to you with Volume 1, Part I of the report.

Yours sincerely

A handwritten signature in dark ink, reading "Pamela A. McIlroy". The signature is written in a cursive, flowing style.

Chairman

Ottawa, July, 1977

Explanation of Symbols Used

- Denotes zero or none reported
- .. Indicates that figures are not available
- * Indicates a reported figure which disappears on rounding, or is negligible

The sum of the figures in a table may differ from the total, owing to rounding.

The record of the proceedings of the public sittings held by the Board on this Reference is referred to as the Transcript.

Prefatory Note on the Organization of the Report - Reference 152

Volume 1, Part I of this report contained the Board's summary and recommendations with respect to fresh fruits and vegetables.

The remaining parts of Volume 1 will contain the individual commodity reports on which the Board's recommendations were based. Part II includes the reports on fresh vegetables; they are presented in alphabetical order except for "Other Vegetables," which appears last. Each report presents the Board's conclusions and recommendations, the relevant tariff considerations, and the evidence concerning domestic production and consumption, foreign trade and the competitive position of Canadian growers.

Volume 1, Part III will give the individual commodity reports on fresh fruits. Volume 2, in as many parts as may prove to be necessary, will contain the Board's report on processed fruits and vegetables.

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ARTICHOKES

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ARTICHOKES

The globe, common, green, Italian, French or Paris artichoke (Cynara scolymus) is sometimes also called the true artichoke to distinguish it from the Jerusalem artichoke (Helianthus tuberosus), a quite different plant. Both plants belong to the family Compositae, and both are considered for customs classification purposes to be artichokes. The Chinese artichoke (Stachys sieboldii), also known as knot root, chorogi and Japanese artichoke, is similar to the Jerusalem artichoke; it, too, is considered for customs classification purposes to be an artichoke.

The Jerusalem artichoke, a native to North America, is rarely cultivated for human consumption although small quantities are used in making pickles, relishes and dietary preparations. It is cultivated extensively in France as a fodder. Because of its limited use as a food for human consumption, the Jerusalem artichoke is not further considered in this report.

The globe artichoke is grown for the fleshy base of the immature flower heads and the scales of the blossom bud. The plant grows to a height of 3 to 4 feet, sending up shoots from a permanent crown. These vary in number from a single shoot in young plants to as many as 12 or more in older plants.

Artichokes require a rich soil and a mild, humid climate. They are grown in the United States on a large scale only in the mid-coastal counties of California near the ocean where yields average about 6,000 pounds per acre (see Appendix Table 4).

There is no recorded commercial production of globe artichokes in Canada.

CONSUMPTION AND IMPORTS

Since there is no domestic commercial production of artichokes, Canadian consumption is met entirely by imports. All imports are for the fresh market. During the period 1971-74, annual imports averaged 3.5 million pounds, an increase of 24 per cent over the 1966-70 average of 2.8 million pounds.

On a regional basis, the largest importers have been the provinces of Ontario and Quebec which accounted for 86 per cent of all artichoke imports during the period 1971-74 (see Appendix Table 2). The total value of imports in 1974 was \$926,100.

TARIFF CONSIDERATIONS

Artichokes are classified under tariff item 8701-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Artichokes	Free	Free	30 p.c.

Tariff item 8701-1 has remained unchanged since the introduction of a separate item in April, 1959. Artichokes were previously entered duty-free under a tariff item introduced in 1950 for witloof or endive, artichokes, horseradish and okra.

No party appearing before the Board proposed that tariff item 8701-1 be changed either as to nomenclature or rates of duty.

CONCLUSIONS

The Board feels that, in the absence of domestic production or of its development, an increase in the rate of duty would only raise the cost of artichokes to the Canadian consumer. Moreover, it is noted that imports of this vegetable are not in significant volume and, additionally, there does not appear to be any necessity to record such importations separately for statistical purposes. Accordingly, the Board recommends that artichokes be classified under the tariff item for vegetables, fresh, "n.o.p., of a class or kind not produced in Canada." They would, thus, enter free of duty under all tariffs.

RECOMMENDATIONS

The Board recommends that present tariff item 8701-1 be deleted from Schedule "A" of the Customs Tariff. It is further recommended that future imports of artichokes be classified as vegetables, fresh, "n.o.p., of a class or kind not produced in Canada."

Artichokes: Imports by Country of Origin, 1966-75

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Spain</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -					
1966	2,316	2	-	-	2,319
1967	2,786	-	7	-	2,793
1968	2,251	7	-	-	2,258
1969	3,164	-	-	-	3,164
1970	3,403	-	-	3	3,407
Average <u>1966-70</u>	2,784	2	1	1	2,788
1971	2,704	-	-	-	2,704
1972	3,351	-	-	2	3,353
1973	3,738	-	-	-	3,738
1974	4,039	-	11	*	4,050
1975	4,190	-	-	2	4,192
Average 1971-75	3,604	-	2	1	3,607

Source: Statistics Canada.

Artichokes: Imports by Province and Region, 1967-1975

	<u>Average 1967-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	6	9	5	11	27	16
Nfld.	-	-	-	-	*	-
N.S.	3	3	2	9	1	2
N.B.	3	6	3	2	26	14
Central Region	2,778	2,493	3,123	3,201	3,061	3,746
Que.	1,214	1,120	1,378	1,518	1,340	1,672
Ont.	1,564	1,373	1,745	1,683	1,721	2,074
Western Region	121	203	226	525	962	429
Man.	7	12	12	30	34	32
Sask.	1	1	4	3	2	14
Alta.	11	22	39	39	40	45
B.C.	102	168	171	453	886	338
Canada	2,906	2,704	3,353	3,738	4,050	4,192

Source: Statistics Canada.

Appendix Table 3.

Artichokes: Imports by Month, 1966-75

<u>Month</u>	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	169	6.1	153	4.2	141	47	250	189
Feb.	166	6.0	184	5.1	180	192	122	296
Mar.	365	13.1	425	11.8	434	441	486	407
Apr.	534	19.1	583	16.2	723	672	687	506
May	467	16.8	699	19.4	620	705	869	797
June	208	7.4	466	12.9	202	389	477	628
July	45	1.6	98	2.7	28	25	170	222
Aug.	13	0.5	73	2.0	137	69	100	55
Sept.	43	1.6	100	2.8	101	125	75	156
Oct.	224	8.0	241	6.7	170	345	242	268
Nov.	274	9.8	281	7.8	342	359	265	268
Dec.	279	10.0	304	8.4	275	371	307	400
Total	2,788	100.0	3,607	100.0	3,353	3,738	4,050	4,192

Source: Statistics Canada.

Appendix Table 4

Artichokes^(a): Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound,
California^(b), 1966-1974

<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -					
9,840	11,000	11,100	12,000	10,800	11,225
- Production '000 lb. -					
66,040	79,200	71,000	60,000	70,200	70,100
- Average Yield, lb. -					
6,711	7,200	6,396	5,000	6,500	6,245
- Farm Value \$'000 -					
6,393	7,697	8,222	8,699	12,152	9,193
- Farm Value ¢ per lb. -					
9.7	9.7	11.6	14.5	17.3	13.1

(a) Includes production for fresh market and processing.

(b) No reported production outside of California.

Source: U.S. Department of Agriculture.

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ASPARAGUS

Asparagus (Asparagus officinalis altilis var. altilis) originated along the sea-coast of Europe and Asia. It is a hardy perennial grown for its edible shoots or spears. In North America, spears are harvested in the green stage; in Europe and parts of Asia, the crowns or roots are hilled with soil in early spring and the white or blanched spears are harvested when the tips break the surface.

The plant thrives in temperate zones but does not survive for long in regions with hot summers. Cultivation is successful where low temperatures or drought cause a period of dormancy.

The most commonly grown varieties have been Washington types of which the latest Canadian one is the Viking. More recently, California varieties C66 and C72 have been introduced into Canada. However, these have not adapted readily to our environment and have resulted in poor plant populations three or four years after establishment of the plantation. A newer Viking line is being introduced to Ontario and should prove beneficial to the asparagus industry in other parts of Canada.

Asparagus is a comparatively minor crop in Canada. Its annual average farm value during 1971-74 was \$2.1 million. Per capita consumption has remained relatively stable over the past 15 years.

GROWING, HARVESTING AND MARKETING

Asparagus should be grown in well-drained lighter soils which warm up quickly in spring and produce early spears. However, early spring frosts can damage exposed spears and reduce yields up to 20 per cent. In Canada, the season runs from about the beginning of May to mid July.

The traditional cultural practice for asparagus has been to sow the seed-bed in spring. In fall, crown (roots) are dug up and stored for the winter. The largest and most vigorous crowns are planted in a permanent field the following spring. These are set 1 foot apart at the bottom of 4-inch furrows in rows 4 to 5 feet apart. The crowns are then covered with 1 to 2 inches of soil. More soil is added throughout the season so that, by fall, the furrows are filled.

This is a costly practice. Recent research has indicated that plantings can be established by seeding directly to the permanent bed. If sown early enough in the spring (the first or second week in May), the first crop can usually be harvested in the spring of the third year. Yields are equal to that of transplants set out the same year as the seeded crop. This new cultural practice may reduce the cost of establishing a plantation by more than \$100 per acre. In addition to reducing starting costs, direct seeding also permits larger plant populations which should result in increased production.

The age at which asparagus is ready to harvest and the length of the cutting season vary with location. When the growing season is long and relatively cool, spears may be harvested earlier and the cutting season extended. In Canada, the first harvesting of spears is carried out in the spring of the third year and lasts two to three weeks. In subsequent years, the period is somewhat longer. An established asparagus planting can last up to 25 years with peak production occurring from the fifth to the twelfth year.

The production of asparagus is labour-intensive, usually requiring an average of one man per 2 acres. Labour accounts for about half of the production cost. For technical reasons, mechanical harvesters have not been widely used in Canada although many growers are using "harvest aids" with some success. It is reported that some Ontario growers have stopped cultivating asparagus because of the cost and difficulty of obtaining labour.

Asparagus is one of the most perishable vegetables marketed commercially. Once harvested it quickly loses its quality while undergoing marked changes in structure and chemical composition. Asparagus is rarely stored and then only for a few days when the market is overstocked. If stored, it should be cooled rapidly, to 4°C or lower, immediately after harvest and low temperatures should be maintained during storage.

Growers sell their crop to the fresh market or to processors. For the fresh market, the crop may be sorted into 1-pound retail bundles or it may be sold in bulk to wholesalers with the bundling performed by retail outlets. Crops for processing are sold in bulk.

ACREAGE, PRODUCTION AND FARM VALUE

In Canada, important asparagus producing areas are in Ontario - in the south-west Lake Huron region and the Niagara Peninsula, British Columbia - the southern interior, Quebec - the county of St. Hyacinthe, and Manitoba - around greater Winnipeg. Table 1 shows that the total acreage of asparagus in Canada declined to 3,550 acres in 1971-74 from an annual average of 3,936 acres in 1961-65. Over the same period, Ontario's share declined to 74 per cent from 80 per cent, while that of British Columbia and Manitoba increased.

Annual average asparagus production in Canada declined 3.6 per cent between the periods 1961-65 and 1971-74, from 6.4 million pounds to 6.2 million pounds. The latter figure, however, represented a substantial recovery from the 1966-70 period when annual production averaged 5.3 million pounds.

Production declined slightly in Ontario, Quebec, and British Columbia in 1971-74 compared with 1961-65 but increased by more than 40 per cent in Manitoba. Ontario remained the largest producer by a wide margin, accounting for an annual average of 4.7 million pounds or 76 per cent of total production in the 1971-74 period. This was roughly the same share as it had in the 1961-65 period.

Table 1: Asparagus: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, by Province, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Quebec	254	250	220	220	250	270	240	- 5.5
Ontario	3,160	2,486	2,280	2,670	2,710	2,800	2,615	- 17.2
Manitoba	78	74	120	120	120	120	120	+ 53.8
B.C.	444	440	520	580	610	590	575	+ 29.5
Canada	3,936	3,250	3,140	3,590	3,690	3,780	3,550	- 9.8
- Production, '000 lb. -								
Quebec	521	466	506	440	525	513	496	- 4.8
Ontario	4,883	3,913	4,132	4,520	5,396	4,729	4,694	- 3.9
Manitoba	127	174	200	138	188	188	179	+ 40.9
B.C.	904	713	856	802	872	814	836	- 7.5
Canada	6,435	5,266	5,694	5,900	6,981	6,244	6,205	- 3.6
- Average Yield, lb. -								
Quebec	2,051	1,864	2,300	2,000	2,100	1,900	2,067	+ 0.8
Ontario	1,545	1,574	1,812	1,693	1,991	1,689	1,795	+ 16.2
Manitoba	1,628	2,351	1,667	1,150	1,567	1,567	1,492	- 8.4
B.C.	2,036	1,620	1,646	1,383	1,430	1,380	1,454	- 28.6
Canada	1,635	1,620	1,813	1,643	1,892	1,652	1,748	+ 6.9
- Farm Value, \$'000 -								
Quebec	110	119	131	118	148	164	140	+ 27.3
Ontario	1,012	1,016	1,313	1,515	1,862	1,980	1,668	+ 64.8
Manitoba	19	38	48	43	56	56	51	+168.4
B.C.	152	155	229	221	256	302	252	+ 65.8
Canada	1,293	1,328	1,721	1,897	2,322	2,502	2,111	+ 63.3
- Farm Value, ¢ per lb. -								
Quebec	21.1	25.5	25.9	26.8	28.2	32.0	28.2	+ 33.6
Ontario	20.7	26.0	31.8	33.5	34.5	41.9	35.5	+ 71.5
Manitoba	15.0	21.8	24.0	31.2	29.8	29.8	28.5	+ 90.0
B.C.	16.8	21.7	26.8	27.6	29.4	37.1	30.1	+ 79.2
Canada	20.1	25.2	30.2	32.2	33.3	40.1	34.0	+ 69.2

Source: Statistics Canada.

Average yield per acre for all growers in Canada increased slightly during the review period, reaching 1,748 pounds in 1971-74 compared with 1,635 pounds in 1961-65. The yield in Quebec was usually higher than that in the other provinces. However, Ontario was the only province to record a significant increase in yield - 16.2 per cent between 1961-65 and 1971-74. A sharp decline in yield, 28.6 per cent, took place in British Columbia over the same period.

In view of the declining acreage, it is evident that the improvement in the Canadian yield has been responsible for holding the loss of production to only 3.6 per cent during the period under study. Obviously, weather plays an important part in the variations in average yield per acre. However, it seems that improved cultural practices, better varieties and increasing specialization by competent growers in the major producing areas have had a salutary effect on yields.

The annual farm value of asparagus averaged \$2.1 million in 1971-74 compared with \$1.3 million in 1961-65. This increase was entirely attributable to a rise in average price per pound.

The farm value per pound of asparagus for all Canada rose from an average of 20.1 cents in 1961-65 to 34.0 cents in 1971-74. Farm value per pound rose most in Manitoba and least in Quebec. During 1971-74, average farm values per pound ranged from 28.2 cents in Quebec to 35.5 cents in Ontario.

SUPPLY AND DISPOSITION

The total annual domestic consumption of asparagus averaged 16.9 million pounds in 1971-74, an increase of 30 per cent from the 13.0 million pounds consumed in 1961-65 (see Table 2). Per capita consumption increased slightly from 0.7 pound in 1961-65 to 0.8 pound in 1974.

Over the past 15 years, there has been a shift in domestic consumption habits. The amount of fresh asparagus consumed remained roughly the same in 1971-74 as in 1961-65, but consumption in processed form increased by more than 50 per cent. As a result, domestic consumption of fresh asparagus fell to 36 per cent of total consumption in 1971-74 from 45 per cent in 1961-65. Conversely, consumption of processed asparagus increased to 64 per cent in 1971-74 from 55 per cent in 1961-65.

A major shift also occurred in the source of supply. From 1961-65 to 1971-74, imports increased by 83 per cent while domestic production declined by about 4 per cent. As a result, in 1971-74, imports accounted for 66 per cent of total Canadian supply. By comparison, in 1961-65, total supply was met by imports and domestic production on a roughly equal basis.

Table 2: Asparagus: Supply and Disposition, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb.	-			
<u>Total Production</u>	6,435	5,266	5,694	5,900	6,981	6,244	6,205	- 3.6
<u>Total Imports</u>								
Fresh	6,562	8,742	10,187	12,349	12,644	12,901	12,020	+ 83.2
Processed (canned) (a)	5,781	8,113	9,388	11,404	11,557	11,797	11,036	+ 90.9
Processed (frozen) (b)	645 (c)	387	565	676	644	689	644	- 0.2
	136	242	234	269	443	415	340	+150.0
<u>Total Supply Available</u>	12,997	14,008	15,881	18,249	19,625	19,145	18,225	+ 40.2
Available for processing or imported processed								
From domestic production	7,154	8,699	10,936	12,490	12,452	12,690	12,143	+ 69.7
Imported fresh	4,094	3,141 (d)	3,564	3,936	3,657	3,694	3,713	- 9.3
Imported processed	2,279	4,929	6,573	7,609	7,708	7,892	7,446	+226.7
	781	629	799	945	1,087	1,104	984	+ 26.0
Available for fresh market From domestic production								
Imported	5,843	5,309	4,945	5,759	7,173	6,455	6,082	+ 4.1
	2,341	2,125	2,130	1,964	3,324	2,550	2,492	+ 6.5
	3,502	3,184	2,815	3,795	3,849	3,905	3,590	+ 2.5

Table 2: Asparagus: Supply and Disposition, Canada, 1961-1974 (concl.)

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb.	-			
<u>Total Exports (Canned) (a)</u>	..	1,193(e)	1,129	1,017	1,409	1,833	1,347	..
<u>Total Domestic Disappearance</u>	12,997	12,815	14,752	17,232	18,216	17,312	16,878	+ 30.2
Consumed in processed form	7,154	7,506	9,807	11,473	11,043	10,857	10,796	+ 50.9
From domestic production	4,094	1,948(e)	2,435	2,919	2,248	1,861	2,366	- 42.2
Imported fresh	2,279	4,929	6,573	7,609	7,708	7,892	7,446	+226.7
Imported processed	781	629	799	945	1,087	1,104	984	+ 26.0
Fresh market consumption	5,843	5,309	4,945	5,759	7,173	6,455	6,082	+ 4.1
From domestic production	2,341	2,125	2,130	1,964	3,324	2,550	2,492	+ 6.5
Imported	3,502	3,184	2,815	3,795	3,849	3,905	3,590	+ 2.5

(a) Converted to fresh equivalent on the basis of .81 lb. fresh per 1 lb. canned product.
 (b) Converted to fresh equivalent on the basis of 2.17 lb. fresh per 1 lb. frozen product.
 (c) Three-year average omitting 1961 and 1962.
 (d) Four-year average omitting 1968.
 (e) Three-year average omitting 1966 and 1967.

Source: Derived from Statistics Canada and Agriculture Canada data.

Between 1961-65 and 1971-74, the supply of asparagus for processing, including processed imports in fresh equivalent weight, increased rapidly while supplies for the fresh market hardly rose at all. However, only a small quantity of imported asparagus had been processed. About 90 per cent of all imports both in 1961-65 and 1971-74 arrived in the fresh form. In recent years, almost 90 per cent of total imports have entered during April, May, and June - roughly coincident with the Canadian production period.

Imports destined for the fresh market remained steady during the review period at about 3.5 million pounds. But imports for processing more than tripled from 2.3 million pounds in 1961-65 to 7.4 million pounds in 1971-74. Meanwhile, domestic production for processing declined and production for the fresh market rose slightly. In summary, Canadian producers have suffered a sharp reduction in their share of the rapidly increasing processing market but have maintained their share of the relatively stable fresh asparagus market. However, as will be shown later, due to a shift in the consumption pattern of fresh asparagus, the in-season share of Canadian producers of the fresh market has diminished as well.

Exports of asparagus in 1971-74 amounted to 22 per cent of domestic production and comprised processed asparagus in cans only.

Domestic production of asparagus is concentrated in May and June. A small quantity is produced in early July (see Appendix Table 3) but none is available from August to April. During these off-season months, imports account for the entire fresh market consumption.

Appendix Table 4 shows that, overall, imports for fresh market consumption were just slightly lower in 1971-74 than in 1961-65. However, it would appear there has been a shift in volume from the off-season to the on-season. On-season fresh market asparagus imports rose to 1,361 million pounds in 1971-74 from 861 million pounds in 1961-65 (see Table 3) or from 28 per cent of fresh market consumption during the Canadian production period to 37 per cent. Off-season imports for the fresh market declined.

Table 3: Asparagus: Fresh Market Production, Imports and Consumption, Selected Averages, 1961-1974

	<u>1961-65</u>	<u>1966-70</u>	<u>1971-74</u>
	- '000 lb. -		
Production			
On-season (a)	2,198	1,851	2,369
Off-season (b)	<u>143</u>	<u>274</u>	<u>123</u>
Total	2,341	2,125	2,492
Imports			
On-season (a)	861	961	1,361
Off-season (b)	<u>2,641</u>	<u>2,223</u>	<u>2,229</u>
Total	3,502	3,184	3,590
Consumption			
On-season (a)	3,059	2,812	3,730
Off-season (a)	<u>2,784</u>	<u>2,497</u>	<u>2,352</u>
Total	5,834	5,309	6,082
Imports as % of Consumption			
On-season (a)	28.1	34.2	36.5
Off-season (b)	<u>94.9</u>	<u>89.0</u>	<u>94.8</u>
Total	59.9	60.0	59.0

(a) May and June growing season.

(b) January-April, July-December.

Source: Statistics Canada and Agriculture Canada.

The increase in on-season fresh market asparagus imports indicates a shift in the Canadian consumption pattern. Although average total annual fresh asparagus consumption remained roughly the same in 1971-74 as in 1961-65, off-season consumption declined during the review period while on-season consumption rose. Thus it appears that an increasing proportion of asparagus consumed during the off-season is processed rather than in the fresh form.

IMPORTS

In 1971-75, about 95 per cent of all asparagus imports originated in the United States (see Appendix Table 5); the remainder, in Mexico. Most imports for processing came from the United States while imports from Mexico were mainly for the fresh market and arrived in February, March, and April. There are almost no imports from August to January because asparagus requires a dormant stage in order to grow. Hence the U.S. production season is similar to Canada's except that it begins earlier. In addition, asparagus is a highly

perishable crop and cannot be stored even under refrigeration for more than a few days. More than one-quarter of U.S. imports were for the fresh market and arrived in May and June - the peak of the Canadian production season. The remaining imports from the United States were for processing (see Table 2 and Appendix Table 5). In recent years, Mexico has probably been supplying an increasing proportion of the fresh asparagus market in Canada.

California and Washington have been the main sources of U.S. imports for the fresh market (see Appendix Table 8). In 1974, the former supplied 74 per cent and the latter 20 per cent of total Canadian imports of fresh market asparagus from the United States. Most of the remaining U.S. imports came from New Jersey.

British Columbia, Ontario, and Quebec have traditionally received more than 95 per cent of all asparagus imports. In 1974, their imports were 5.9 million pounds, 3.3 million pounds and 2.3 million pounds respectively. This distribution no doubt was heavily influenced by the requirements of the asparagus processing industry.

EXPORTS

There are no recorded Canadian exports of fresh asparagus.

PRICES

As previously indicated, the average Canadian farm price for asparagus increased from 20.1 cents in 1961-65 to 34.0 cents per pound in 1971-74 (see Table 1). Average farm prices rose sharply in 1974 from 33.3 to 40.1 cents per pound - an increase of 20.4 per cent - under the impact of general inflationary forces in that year. During the latter period, the average price per pound for domestically produced asparagus was slightly higher in the fresh market than in the processing market. By comparison, the average price per pound in 1966-70 was the same in both markets (see Table 4).

Table 4: Estimated Prices, Asparagus Sold for Processing and Asparagus Sold on the Fresh Market, 1966-1974

	Average <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	Average <u>1971-74</u>
	- ¢ per lb. -					
Sold for processing	25.2	29.2	31.3	31.9	40.8	33.3
Sold for the fresh market	25.2	31.9	34.0	34.8	39.1	35.1
Total Production	25.2	30.2	32.2	33.3	40.1	34.0

Source: Derived from Statistics Canada data.

Table 5 shows that in 1974 there were wide variations in whole-sale-to-retail selling prices for domestic and imported asparagus, by month and by city. By month, the highest prices were obtained during February and these declined throughout the spring and into the domestic production period. The lowest prices were generally reached toward the end of June. By city, Vancouver's prices were highest, followed by those in Toronto, Halifax, Winnipeg, and Montreal respectively. As with many other vegetables, prices for imported asparagus were generally higher than those for domestic produce even during part of the Canadian production season.

Table 5: Wholesale-to-Retail Selling Prices for Domestic and Imported Asparagus in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974

	Halifax		Montreal		Toronto		Winnipeg		Vancouver	
	Dom.	Imp.	Dom.	Imp.	Dom. ^(a)	Imp.	Dom.	Imp.	Dom.	Imp.
	- ¢ per lb. -									
Jan.	-	-	-	-	-	-	-	-	-	-
Feb.	-	-	-	98.3	-	74.9	-	-	-	88.9
Mar.	-	-	-	73.8	-	60.9	-	73.4	-	70.7
Apr.	-	-	-	52.5	-	56.8	-	53.2	-	53.4
May	-	-	43.8	53.1	46.4	51.3	38.8	53.7	-	57.2
June	55.0	-	36.3	42.5	50.3	-	37.5	41.7	-	57.1
July	55.0	-	35.8	-	57.3	-	40.4	-	-	-
Aug.	-	-	-	-	-	-	-	-	-	-
Sept.	-	-	-	-	-	-	-	-	-	-
Oct.	-	-	-	86.1	-	-	-	-	-	-
Nov.	-	-	-	-	-	-	-	-	-	-
Dec.	-	-	-	-	-	-	-	-	-	-

(a) Basket, 11 quart, loose.

Source: Appendix Tables 9a and 9b.

An examination of the more detailed price information in Appendix Tables 9a and 9b shows that in 1974 wholesale-to-retail prices for imported asparagus displayed the same pattern as those for domestic asparagus. In both instances, prices were high early in the season and declined as more domestic supplies came on the market. Although imported prices declined, they still maintained a level slightly above domestic prices, but well below the off-season peak.

Table 6 presents some information on landed cost of imported asparagus in Toronto, Montreal, Winnipeg, and Vancouver in 1972-1974. More complete data can be found in Appendix Tables 10a and 10b. Freight, brokerage and other associated costs vary significantly from one market area to another. These costs, of course, add to the amount of protection afforded to the domestic grower. In 1974, freight and brokerage costs ranged from 2 to 8 per cent of the landed cost of asparagus in Vancouver, from 12 to 17 per cent in Toronto and from 6 to 12 per cent in Winnipeg.

Table 6: The Landed Cost of Imported Asparagus in Toronto, Montreal, Winnipeg, and Vancouver, 1972-74

		<u>Cost</u> <u>f.o.b.</u>	<u>Freight,</u> <u>Brokerage,</u> <u>etc.</u>	<u>Duty</u>	<u>Total</u> <u>Landed Cost</u>
- range in ¢ per lb. -					
Toronto	1972	27.5-38.4	4.3-6.5	2.7-3.8	34.6-48.6
	1973	36.1	6.4	Free	42.5
	1974	35.7-44.5	6.4-9.4	3.6-4.4	47.4-58.3
Montreal	1974	37.8	9.0	3.8	50.6
Winnipeg	1974	31.0-41.2	2.6-5.9	3.1-3.7	38.9-50.8
Vancouver	1974	32.5-39.8	0.8-3.1	3.3-3.9	38.5-45.8

Source: Appendix Tables 10a and 10b.

The f.o.b. cost of imported asparagus fluctuates over a wide range during the year and accounts for most of the changes in total landed cost. When f.o.b. costs are falling, freight and brokerage charges provide an increasing degree of protection to domestic producers. Freight and brokerage costs are relatively less important for asparagus as an element protecting Canadian growers than is the case for many other vegetables because asparagus is a relatively low-volume, high-value commodity. The freight and brokerage costs nevertheless are roughly equal to the cost of the duty.

CANADA-UNITED STATES COMPARISONS

U.S. asparagus production in 1971-74 averaged 270.8 million pounds compared with 302.8 million pounds in 1966-70 (see Appendix Tables 11a-11c). About one-third of the U.S. crop is grown for fresh market consumption, the remainder for processing. About half of the total production in 1971-74 was grown in California and one-quarter in Washington. Apparently, asparagus production in California declined from 1966-70 to 1971-74 because of a labour shortage and competition from Taiwan which may have led California growers to stop producing white asparagus.

In Canada, asparagus production in 1971-74 was 6.2 million pounds or 2.3 per cent of U.S. production. It is clear that, in the North American context, Canada is a marginal producer. About 40 per cent of Canadian production was for fresh market consumption, the rest for processing.

In the United States, average yield per acre appears to be one-third higher than in Canada. However, yields in California and Washington of over 2,900 pounds per acre are about two-thirds larger than the average for Canada and twice as large as yields in Manitoba and British Columbia. Yields in Canada appear lower, partly at least, because the white butt-ends of the asparagus are not harvested as in the United States. However, it appears that, even when allowance is made for this, yields per acre are likely significantly higher, on average, in the United States.

In 1971-74, the average farm value of asparagus grown in Canada was 34.0 cents per pound (see Table 1) compared with 25.2 cents in the United States (see Appendix Table 11a). From 1966 to 1974, average returns per pound in Canada were about one-third higher than in the United States. This may largely reflect the fact noted above that Canadian-grown asparagus, unlike that grown in the United States, is harvested without white butt-ends. These add to weight but are usually discarded by the consumer in Canada.

In 1971-74 in Ontario, Canada's main asparagus producing area, the average farm value per pound was about 38 per cent higher than in California the main U.S. producing area. It was also about 23 per cent higher than in Michigan where the highest farm value per pound was obtained. During the same period, returns to growers in British Columbia exceeded those of growers in Washington, their main competitors, by about 30 per cent. Part of the explanation for lower prices in the United States is that a larger proportion of asparagus is sold for processing there than in Canada. Asparagus for processing is usually sold at lower prices than asparagus for fresh market consumption.

The Board did not have production cost data for asparagus. However, average farm values usually give a good indication of growing costs since farmers would not normally continue to cultivate a crop if they could not cover production costs.

In 1974, California produced about half the U.S. asparagus crop while Ontario produced about three-quarters of the Canadian crop. The average farm value per pound of asparagus in California for fresh market consumption was 34.6 cents (see Appendix Table 11b). The average farm value in Ontario was 41.9 cents per pound including sales to the fresh market and for processing. Farm value for sales to the fresh market only would be even higher. Thus it seems production costs in Ontario are higher than those in California. Lower yields in Ontario are a major factor.

TARIFF CONSIDERATIONS

All asparagus entering Canada is classified under tariff item 8702-1. The tariff item is as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Asparagus per pound	Free	3½ cts. or 10 p.c.	3½ cts. or 10 p.c.

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 14 weeks, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

The present tariff on asparagus has been in effect since 1959. As Table 7 shows, free entry has characterized the British Preferential Tariff rate; but the relatively high rates applied in the pre-war period to both M.F.N. and Gen. schedules have been significantly reduced.

Table 7: Asparagus: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. (a)
1936-38	Free	15 p.c.	30 p.c. (a)
1939-47	Free	10 p.c.	30 p.c. (a)
1948-59 (Apr. 9)	Free	3½ cts. (8 weeks) (b) 10 p.c.	3½ cts. (8 weeks) (c) 10 p.c.
1959 (Apr. 10)- 1972 (Feb. 19)	Free	3½ cts. (14 weeks) 10 p.c.	3½ cts. (14 weeks) 10 p.c.
1973 (Feb. 20)	Free	3½ cts. (14 weeks) Free	3½ cts. (14 weeks) Free
1974 (Feb. 20)	Free	3½ cts. (14 weeks) 10 p.c.	3½ cts. (14 weeks) 10 p.c.

(a) Not less than 3 cents April 15-May 31.

(b) Not applied until 1950.

(c) Revised June 1, 1950 from 30 p.c.

Source: Canadian Customs Tariff.

The time during which the seasonal specific duty has been applied varies by year and area. Appendix Table 12 shows the dates of application and removal of this duty from 1966 to 1975. In central Canada, the duty has been in effect for the entire 14 weeks from 1966 to 1975. In western Canada, the duty was in effect for the full period each year except in 1975 when it was not applied at all. In the Maritimes, the seasonal specific duty has not been applied since 1966.

In recent years, the proportion of imports subject to duty has declined (see Appendix Table 13). In 1966-70, 99.7 per cent of imports were dutiable compared with 92.1 per cent in 1971-75. The decline resulted from the suspension of the duty from February 20, 1973, to February 19, 1974 on all asparagus imported during the off-season.

Appendix Table 13 also shows that the ad valorem equivalent of the specific duty of 3.5 cents per pound has been declining because of the increasing f.o.b. price of imported asparagus. In 1966, when the average f.o.b. price was 24.1 cents per pound, the ad valorem equivalent was 14.5 per cent. By 1974, the ad valorem equivalent of the same specific duty was 10.0 per cent as a result of the rise of the average import price to 37.6 cents per pound.

The average import price included a mix of asparagus for fresh market consumption and for processing. Table 2 shows that in 1974, 3.9 million pounds of asparagus, or 33.1 per cent, was imported for fresh market consumption and 7.9 million pounds or 66.9 per cent for processing. Furthermore, Appendix Tables 11b and 11c show that in 1974, for asparagus destined for fresh market consumption, the average farm value per pound received by growers in the United States, (the source of about 95 per cent of total imports into Canada in that year) was about 27 per cent higher than the average farm value for asparagus sold for processing. On the basis of the above, the Board estimates that the average import price in 1974 can be broken down roughly into imports for fresh market consumption at about 40 cents per pound and imports for processing at about 30 cents per pound.

Asparagus is not specifically provided for in the Tariff Schedules of the United States Annotated, but enters as an "other" vegetable under item 137.85. Imports from Canada would be dutiable at a rate of 25 per cent ad valorem.

The Horticultural Council of Canada proposed an increase in the seasonal specific duty on asparagus to $5\frac{1}{2}$ cents per pound under both Most-Favoured-Nation and General Tariff, with a minimum rate of 20 p.c. and an increase to 20 weeks in the period of application. When the specific duty is not in effect asparagus would be imported free of duty.

The Canadian Food Processors Association proposed a separate item for asparagus for processing with a rate of 10 p.c. for 14 weeks and Free for the remainder of the year. A separate item would appear to merit consideration in view of the different price levels prevailing for asparagus sold for fresh market consumption and asparagus sold for processing.

On the basis of the average 1974 f.o.b. price for imported fresh asparagus, estimated at 40 cents per pound, the specific duty of $5\frac{1}{2}$ cents per pound proposed by the Horticultural Council would be equivalent to an ad valorem rate of 13.8 per cent. On asparagus imported for processing the ad valorem rate would be 18.3 per cent. In terms of ad valorem equivalents, the degree of protection provided by the existing $3\frac{1}{2}$ cents per pound based on the f.o.b. price of asparagus for processing (30 cents per pound) would be 11.7 per cent. On asparagus for fresh market consumption (40 cents per pound), the rate would be 8.8 per cent.

Under the Council's proposal the ad valorem rate of 20 per cent would become operative at an f.o.b. price for imported asparagus of 27.5 cents per pound. So the Council's proposal could mean that the 20 per cent ad valorem rate would already be generally applicable at this time. In terms of 1974 f.o.b. prices for imported asparagus sold for fresh consumption and for processing, the 20 per cent ad valorem rate would be equal to specific rates of 8.0 and 6.0 cents per pound respectively, or a weighted average of 6.9 cents per pound based on 1974 imports.

Regarding the proposal to extend the maximum period for application of the seasonal duty by six weeks, from 14 to 20 weeks, it can be seen that Canadian production of asparagus for the fresh market is confined to a short period that in most years is less than 12 weeks. Moreover, any production for the fresh market outside this 12-week period would represent a small portion of total production. From this viewpoint, it appears questionable that an extension of the dutiable period for fresh market asparagus would be necessary.

Any extension would, on the basis of the current tariff, not result in much change in protection during these additional six weeks. If the off-season rate is eliminated, an extension of the maximum period for seasonal duty might be justified, particularly since the extension would in part, be compensated for by the deletion of off-season duty during the remainder of the year.

The duration of the maximum dutiable period for asparagus for processing requires consideration. Imported fresh asparagus for processing can readily displace domestically produced processing asparagus, especially since the main U.S. production period precedes and overlaps the Canadian one. Imports of processing asparagus take place over a period of at least 14 weeks. A longer period of protection, with respect to processing asparagus, could be implemented easily if a separate tariff item for this end-use were recommended.

The adoption of the Horticultural Council's proposal of a minimum rate of 20 p.c. for a period of 20 weeks would raise the cost of fresh market asparagus to Canadian consumers by \$139,020 or by about 3 cents per year for a family of four. On the assumption that asparagus growers would price up to the tariff, and that demand would not be significantly affected by the increase in price, growers would receive an additional \$52,000, about \$35 per acre. Government revenues would increase by \$47,300 and revenues of wholesalers and retailers by \$39,720. Including asparagus for processing the cost to Canadian consumers would increase by \$681,352 or by about 12 cents per family of four.

CONCLUSIONS

While Canadian consumption of asparagus has increased by some 30 per cent over the past 15 years, production of this vegetable in Canada has declined. All of the growth in the market has accrued to imports. Canadian production of asparagus for processing has dropped sharply as Canadian growers have lost ground especially in this market; their share dropped from an average of 57.2 per cent during 1961-65 to 30.6 per cent during 1971-74. Although production for the fresh market has increased somewhat, and imports account for a smaller share of the fresh market, the market position of domestic growers has also deteriorated in this regard. In 1971-74, Canadian growers on average supplied somewhat less than two-thirds of the fresh market during the on-season compared with close to three-quarters during the early sixties.

The relatively weak competitive position of Canadian growers can be ascribed to a number of factors. From evidence available to the Board it would seem that U.S. growers have substantially lower unit costs of production, attributable in part to considerably higher yields. Also, some of the major growing areas in the United States are adjacent to Canada and have a production season which precedes and overlaps the Canadian production season and provides therefore an alternative supply for processors in Canada. In addition the pressure of greater imports of canned asparagus into the United States from overseas has probably increased fresh supplies for processing available in that country for export to Canada. Increased access to the Canadian market has also been facilitated by the erosion of the protection by the specific duty, to a level less than 10 per cent.

The Board is of the opinion that an increase in protection for domestic growers is warranted. The degree of protection which was afforded them in previous years by the specific duty has been continually eroded, on an ad valorem basis, because of increasing import prices. Additional protection should provide a larger margin for Canadian growers and thus stimulate new plantings, thereby enabling domestic producers to supply a greater share of the Canadian market, or at least to stabilize the market against further import penetration. The Board, therefore, recommends that the specific duty be raised to 5½ cents per pound, with a minimum ad valorem rate of 15 per cent, under both the Most-Favoured-Nation and General Tariff. The B.P. rate would remain Free. It is also recommended that the maximum period for application of this duty be unchanged at 14 weeks. Imports of fresh market asparagus during the period when the seasonal duty is not in effect do not compete with Canadian production. Consequently the Board recommends that the current off-season duty of 10 p.c. be dropped and that imports during that time enter duty-free.

The Board agrees with the proposal by the Canadian Food Processors Association that there should be a separate tariff item for asparagus when imported for processing, and recommends a specific duty of 5 cents per pound, with a minimum rate of 15 p.c. under both the Most-Favoured-Nation and General Tariff, and Free under the British Preferential Tariff. This rate is recommended to apply year round.

RECOMMENDATIONS

The Board recommends that the present tariff item 8702-1 be deleted from Schedule "A" of the Customs Tariff and that the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Asparagus, n.o.p. per pound	Free	5½ cts. but not less than 15 p.c., or Free	5½cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 14 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Asparagus for processing			
..... per pound	Free	5 cts. but not less than 15 p.c.	5 cts. but not less than 15 p.c.

Appendix Table 1

Asparagus: Acreage and Number of Farms, by Province
and Region, 1961 and 1971

	1961		1971		
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	9	0.2	10	0.2	11
Nfld.	-	-	-	-	-
P.E.I.	3	0.1	2	*	1
N.S.	6	0.1	8	0.2	8
N.B.	*	*	*	*	2
Central Region	4,076	87.8	3,292	78.1	781
Que.	217	4.7	225	5.3	85
Ont.	3,859	83.1	3,067	72.8	696
Western Region	559	12.0	913	21.7	157
Man.	85	1.8	61	1.4	20
Sask.	5	0.1	8	0.2	10
Alta.	23	0.5	32	0.8	16
B.C.	446	9.6	812	19.3	111
Canada ^(a)	4,644	100.0	4,215	100.0	950

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Asparagus: Supply and Disposition Ratios, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74
			-	per cent	-		
<u>Per Cent of Domestic Production:</u>							
Consumed in Processed Form	63.6	37.0	42.8	49.5	32.2	29.8	38.1
Sold to Domestic Fresh Market	36.4	40.4	37.4	33.3	47.6	40.8	40.2
Exported	..	22.6	19.8	17.2	20.2	29.4	21.7
<u>Total Imports as Per Cent:</u>							
of Total Supply Available	50.5	62.4	64.1	67.7	64.4	67.4	66.0
of Total Domestic Disappearance	50.5	68.2	69.1	71.7	69.4	74.5	71.2
<u>Processed Imports as Per Cent:</u>							
of Consumption in Processed Form	10.9	8.4	8.1	8.2	9.8	10.2	9.1
of Total Domestic Disappearance	6.0	4.9	5.4	5.5	6.0	6.4	5.8
<u>Per Cent of Fresh Market Consumption:</u>							
From Domestic Production	40.1	40.0	43.1	34.1	46.3	39.5	41.0
From Imports	59.9	60.0	56.9	65.9	53.7	60.5	59.0
<u>Per Cent Consumed in Processed Form:</u>							
From Imports	42.8	74.0	75.2	74.6	79.6	82.9	78.1
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	55.0	58.6	66.5	66.6	60.6	62.7	64.0
<u>Production as % of Total Domestic Disappearance</u>							
	49.5	41.1	38.6	34.2	38.3	36.1	36.8

Source: Table 2.

Appendix Table 3

Asparagus: Estimated Monthly Distribution of Fresh Shipments^(a)
1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
- thousand pounds -						
Jan.	-	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	1	-	-	3	-
May	548	790	756	772	1,433	199
June	1,303	1,579	1,374	1,084	1,855	2,004
July	274	122	-	108	33	347
Aug.	-	-	-	-	-	-
Sept.	-	-	-	-	-	-
Oct.	-	-	-	-	-	-
Nov.	-	-	-	-	-	-
Dec.	-	-	-	-	-	-
Total	2,125	2,492	2,130	1,964	3,324	2,550

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Asparagus: Estimated Monthly Distribution of Fresh Market
Consumption, 1961-1974

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent	-	- thousand pounds	-	-	- per cent
Jan.	-	-	-	10	10	100.0
Feb.	100.0	100.0	-	175	175	100.0
Mar.	100.0	100.0	-	793	793	100.0
Apr.	100.0	100.0	1	1,224	1,225	99.9
May	48.3	57.8	790	960	1,750	54.9
June	8.7	13.9	1,579	401	1,980	20.3
July	0.3	4.5	122	11	133	8.3
Aug.	-	-	-	3	3	100.0
Sept.	-	-	-	5	5	100.0
Oct.	-	-	-	7	7	100.0
Nov.	100.0	-	-	4	4	100.0
Dec.	-	-	-	-	-	-
Total	59.9	60.0	2,492	3,590	6,082	59.0

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 5

Asparagus: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
		- thousand pounds -		
1966	6,713	71	-	6,783
1967	7,181	288	-	7,469
1968	8,797	485	-	9,282
1969	7,519	549	-	8,068
1970	8,478	486	-	8,964
Average 1966-70	7,737	376	-	8,113
1971	8,680	708	-	9,388
1972	10,805	599	-	11,404
1973	10,798	758	-	11,557
1974	11,067	729	1	11,797
1975	12,215	644	1	12,860
Average 1971-75	10,713	688	*	11,401

Source: Statistics Canada.

Appendix Table 6

Asparagus: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		- thousand pounds -				
Atlantic Region	8	11	8	11	9	12
Nfld.	-	-	-	-	-	-
P.E.I.	*	-	-	-	-	-
N.S.	5	4	3	5	4	4
N.B.	3	7	4	6	5	8
Central Region	3,883	3,694	4,357	4,801	5,509	5,228
Que.	1,524	1,772	1,918	1,541	2,256	2,354
Ont.	2,359	1,922	2,439	3,260	3,253	2,874
Western Region	4,222	5,683	7,039	6,744	6,279	7,620
Man.	80	76	73	178	218	120
Sask.	12	17	11	43	42	54
Alta.	111	93	100	156	157	190
B.C.	4,020	5,496	6,854	6,368	5,862	7,257
Canada	8,113	9,388	11,404	11,557	11,797	12,860

Source: Statistics Canada.

Appendix Table 7

Asparagus: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds					-			
Jan.	2	*	10	0.1	4	14	21	12
Feb.	39	0.5	114	1.0	93	107	268	59
Mar.	411	5.1	789	6.9	815	1,151	893	729
Apr.	2,365	29.1	2,175	19.1	2,832	2,366	1,907	1,772
May	3,398	41.9	3,907	34.3	2,482	3,858	4,268	4,465
June	1,851	22.8	4,001	35.1	4,827	3,533	3,948	5,274
July	34	0.4	344	3.0	300	414	450	468
Aug.	-	-	12	0.1	7	51	*	1
Sept.	-	-	17	0.1	12	38	10	15
Oct.	4	*	20	0.2	28	13	20	34
Nov.	6	0.1	10	0.1	5	9	7	25
Dec.	4	*	2	*	-	1	3	7
Total	8,113	100.0	11,401	100.0	11,404	11,557	11,797	12,860

Source: Statistics Canada.

Appendix Table 8

Asparagus: Percentage Distribution of Fresh Market from United States, by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>New Jersey</u>	<u>Washington</u>	<u>Others</u>	<u>Total</u>
- per cent -					
<u>1972</u>					
Maritime Region	100.0	-	-	-	100.0
Central Region	47.8	46.1	5.8	0.3	100.0
Western Region	94.7	-	5.3	-	100.0
Canada	57.3	36.7	5.7	0.3	100.0
<u>1973</u>					
Maritime Region	100.0	-	-	-	100.0
Central Region	67.1	24.3	8.6	*	100.0
Western Region	86.8	-	13.2	-	100.0
Canada	73.4	16.5	10.1	*	100.0
<u>1974</u>					
Maritime Region	56.3	37.5	-	6.2	100.0
Central Region	70.4	8.6	20.1	0.9	100.0
Western Region	81.5	-	18.5	-	100.0
Canada	73.6	6.2	19.5	0.7	100.0

Source: Agriculture Canada.

Appendix Table 9a

Asparagus: Weekly Wholesale to Retail Prices at Halifax, Montreal and Toronto, 1974

Week Ending	Halifax			Montreal			Toronto			
	N.S.	Mex.	Cal.	N.J.	Que.	Cal.	Mex.	Wash.	Ont.	
	crt., 30 lb.	ctn., 15 lb.	-	- ctn. - 30 lb. -	-	- ctn., lge. - 30 lb. -	- crt., lge. bchd. loose - 12 lb. -			
Feb. 1										
8										
15		98.3				82.9	85.0			
22						71.7	82.9			
						65.0	71.7			
Mar. 1							65.0			
8		78.3					61.7			
15		78.3					66.7			
22		78.3	69.2				65.0			
29		78.3					61.7			
		78.3					49.2			
Apr. 5			55.8							
12			50.8							
19			50.8							
26			52.5							
3			54.2	54.2			45.8 ^(a)	87.5		
			54.2	45.8			47.5 ^(a)	60.8		
May 10				49.2				55.8		
17				61.7				55.8		
24				53.3	45.8			54.2	69.8	49.0
31				54.2	41.7			37.5	65.7	43.8
June 7				44.6	38.3				60.4	47.9
14				40.4	35.4				67.8	51.1
21					35.8				69.8	51.1
28					35.8				69.8	51.1
		55.0								

Appendix Table 9b

Asparagus: Weekly Wholesale to Retail Prices at Winnipeg
and Vancouver, 1974

Week Ending	Winnipeg		Vancouver	
	Cal. crt., 15 lb.	Man. ctn., 30 lb.	Cal. - ctn., medium - 30 lb.	Wash.
- cents per pound -				
Feb. 1			95.3 (b)	
8			89.3 (b)	
15			85.2 (b)	
22			85.7 (b)	
Mar. 1			76.5 (b)	
8			79.2 (c)	
15	76.7 (a)		73.3	
22	75.9		68.3	
29	67.5		56.4	
Apr. 5	54.2		52.7	
12	49.2		52.9	
19	57.5		52.9	
26	51.7		54.9	
May 3	55.0		57.9	57.9
10	55.5		57.5	57.5
17	53.7		56.3	56.3
24	53.3		57.8	57.8
31	50.8 (a)	38.8		55.8
June 7	41.7 (a)	37.1		56.3
14	41.7 (a)	37.1		58.3
21		37.9		58.3
28		37.9		55.3
July 5		40.4		
12		40.4		
19				
26				

(a) Crate, 30 pound.

(b) Carton, 15 pound.

(c) Large.

Source: Agriculture Canada.

Imported United States Asparagus: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs;
Cost of Duty; Toronto; Selected Data by Month, 1972-1974

Month of Shipment	1972					1973					1974				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
							-	cents per pound	-						
March	Calif.	38.4	6.4	3.8	48.6	Fla.	36.1	6.4	-	42.5	Calif.	44.5	9.4	4.4	58.3
	"	27.5	4.3	2.8	34.6	-	-	-	-	-	Fla.	35.7	8.1	3.6	47.4
	Fla.	27.5	6.5	2.8	36.8	-	-	-	-	-	-	-	-	-	-
April	Fla.	29.2	5.7	2.9	37.8	-	-	-	-	-	Calif.	43.7	6.4	4.4	54.6
	"	35.6	4.6	3.6	43.8	-	-	-	-	-	-	-	-	-	-

Source: Tariff Board survey.

Appendix Table 10b

Imported United States Asparagus: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs;
Cost of Duty, Montreal, Winnipeg and Vancouver; Selected Data by Month, 1974

Month of Shipment	Montreal				Winnipeg				Vancouver						
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total		Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total				
					Landed Cost	Landed Cost					Landed Cost	Landed Cost			
March	-	-	-	-	-	38.9	Calif.	31.0	4.8	3.1	-	-	-		
	-	-	-	-	-	-	-	-	-	-	-	-	-		
	-	-	-	-	-	-	-	-	-	-	-	-	-		
	-	-	-	-	-	-	-	-	-	-	-	-	-		
April	Calif.	37.8	9.0	3.8	50.6	50.8	Calif.	41.2	5.9	3.7	3.7	32.5	3.1	3.3	38.8
	-	-	-	-	-	45.8	-	39.5	2.6	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-	-	37.5	0.9	3.7	42.1
	-	-	-	-	-	-	-	-	-	-	-	39.7	0.9	3.7	44.3
	-	-	-	-	-	-	-	-	-	-	-	35.2	0.8	3.5	39.5
June	-	-	-	-	-	-	Wash.	-	-	-	-	39.8	0.9	3.5	44.3
	-	-	-	-	-	-	-	-	-	-	-	39.8	1.4	3.5	44.7

Source: Tariff Board survey.

Appendix Table 11a

Asparagus: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by
States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
California		43,000	45,700	45,000	44,100	44,450
Michigan		13,500	14,500	15,400	17,000	15,100
New Jersey		14,900	13,800	10,400	6,800	11,475
Washington		19,000	21,700	22,000	23,400	21,525
Other States		<u>23,770</u>	<u>23,370</u>	<u>22,580</u>	<u>21,190</u>	<u>22,728</u>
Total	120,600	114,170	119,070	115,380	112,490	115,278
- Production, '000 lb. -						
California		137,600	155,400	126,000	127,900	136,725
Michigan		18,900	21,800	24,600	25,500	22,700
New Jersey		23,800	17,900	12,500	8,800	15,750
Washington		62,700	58,600	61,600	67,900	62,700
Other States		<u>36,100</u>	<u>35,400</u>	<u>29,800</u>	<u>30,300</u>	<u>32,900</u>
Total	302,780	279,100	289,100	254,500	260,400	270,775
- Average Yield, lb. -						
California		3,200	3,400	2,800	2,900	3,076
Michigan		1,400	1,503	1,597	1,500	1,503
New Jersey		1,597	1,297	1,202	1,294	1,373
Washington		3,300	2,700	2,800	2,902	2,913
Other States		<u>1,519</u>	<u>1,515</u>	<u>1,320</u>	<u>1,430</u>	<u>1,448</u>
Total	2,511	2,445	2,428	2,206	2,315	2,349
- Farm Value, \$'000 -						
California		33,452	36,620	33,618	36,940	35,158
Michigan		4,570	5,892	7,117	8,593	6,543
New Jersey		5,770	4,572	3,653	2,943	4,235
Washington		13,160	12,803	14,230	16,890	14,271
Other States		<u>7,063</u>	<u>8,034</u>	<u>7,793</u>	<u>8,911</u>	<u>7,950</u>
Total	56,483	64,015	67,921	66,411	74,277	68,157
- Farm Value, ¢ per lb. -						
California		24.3	23.6	26.7	28.9	25.7
Michigan		24.2	27.0	28.9	33.7	28.8
New Jersey		24.2	25.5	29.2	33.4	26.9
Washington		21.0	21.8	23.1	24.9	22.8
Other States		<u>19.6</u>	<u>22.7</u>	<u>26.2</u>	<u>29.4</u>	<u>24.2</u>
Total	18.7	22.9	23.5	26.1	28.5	25.2

Source: U.S. Department of Agriculture.

Appendix Table 11b

Asparagus: Fresh Market Production, Farm Value and Farm Value
per Pound, United States, by States, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Production, '000 lb. -					
California	59,500	70,400	66,000	60,800	64,175
Michigan	1,100	1,500	1,700	1,400	1,425
New Jersey	10,200	9,200	7,300	6,400	8,275
Washington	8,600	7,100	7,700	10,800	8,550
Other States	<u>3,900</u>	<u>4,000</u>	<u>3,300</u>	<u>3,000</u>	<u>3,550</u>
Total	83,300	92,200	86,000	82,400	85,975
- Farm Value, \$'000 -					
California	17,910	18,515	20,328	21,037	19,448
Michigan	298	431	568	568	466
New Jersey	2,703	2,558	2,314	2,336	2,478
Washington	2,313	1,988	2,372	2,387	2,265
Other States	<u>1,085</u>	<u>1,171</u>	<u>1,183</u>	<u>1,161</u>	<u>1,150</u>
Total	24,309	24,663	26,765	27,489	25,807
- Farm Value, ¢ per lb. -					
California	30.1	26.3	30.8	34.6	30.3
Michigan	27.1	28.7	33.4	40.6	32.7
New Jersey	26.5	27.8	31.7	36.5	29.9
Washington	26.9	28.0	30.8	22.1	26.5
Other States	27.8	29.3	35.8	38.7	32.4
Total	29.2	26.7	31.1	33.4	30.0

Source: U.S. Department of Agriculture.

Asparagus: Processing Market Production, Farm Value and
Farm Value per Pound, United States by States,
1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Production, '000 lb. -					
California	78,100	85,000	60,000	67,100	72,550
Michigan	17,800	20,300	22,900	24,100	21,275
New Jersey	13,600	8,700	5,200	2,400	7,475
Washington	54,100	51,500	53,900	57,100	54,150
Other States	<u>32,200</u>	<u>31,400</u>	<u>26,500</u>	<u>27,300</u>	<u>29,350</u>
Total	195,800	196,900	168,500	178,000	184,800
- Farm Value, \$'000 -					
California	15,542	18,105	13,290	15,903	15,710
Michigan	4,272	5,461	6,549	8,025	6,077
New Jersey	3,067	2,014	1,339	607	1,757
Washington	10,847	10,815	11,858	14,503	12,006
Other States	<u>5,978</u>	<u>6,863</u>	<u>6,610</u>	<u>7,750</u>	<u>6,800</u>
Total	39,706	43,258	39,646	46,788	42,350
- Farm Value, ¢ per lb. -					
California	19.9	21.3	22.2	23.7	21.7
Michigan	24.0	26.9	28.6	33.3	28.6
New Jersey	22.6	23.1	25.8	25.3	23.5
Washington	20.0	21.0	22.0	25.4	22.2
Other States	18.6	21.9	24.9	28.4	23.2
Total	20.3	22.0	23.5	26.3	22.9

Source: U.S. Department of Agriculture.

Asparagus: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

(a) Year	Maritime Provinces			(b) Central Canada			(c) Western Canada		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	June 29	Oct. 5	98	Apr. 13	July 20	98	Apr. 5	July 12	98
1967	-	-	-	Apr. 7	July 14	98	Apr. 13	July 20	98
1968	-	-	-	Apr. 17	July 24	98	Apr. 17	July 24	98
1969	-	-	-	Apr. 24	July 30	97	Apr. 24	July 30	97
1970	-	-	-	Apr. 30	Aug. 5	97	Apr. 28	Aug. 3	97
1971	-	-	-	May 4	Aug. 10	98	Apr. 21	July 28	98
1972	-	-	-	Apr. 12	July 19	98	Apr. 18	July 25	98
1973	-	-	-	Apr. 3	July 10	98	Apr. 13	July 20	98
1974	-	-	-	Apr. 2	July 8	97	Apr. 2	July 8	97
1975	-	-	-	May 6	Aug. 11	97	-	-	-

(a) Government fiscal year commencing April 1st; ending March 31st of following year.
 (b) Includes Quebec and Ontario east of Thunder Bay, Ontario.
 (c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Asparagus: Dutiable Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Imports				Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.			
1966	6,783	72	1.1	6,711	24.1	3.5	14.5
1967	7,469	1	*	7,468	23.3	3.5	15.0
1968	9,282	-	-	9,282	24.9	3.5	14.1
1969	8,068	16	0.2	8,053	26.5	3.5	13.2
1970	8,964	48	0.5	8,916	26.8	3.5	13.1
Average 1966-70	8,113	27	0.3	8,086	25.2	3.5	13.9
1971	9,388	12	0.1	9,376	28.2	3.5	12.4
1972	11,404	10	0.1	11,394	28.7	3.5	12.2
1973	11,557	3,138	27.2	8,419	32.4	3.5	10.8
1974	11,797	1,166	9.9	10,630	34.4	3.5	10.2
1975	12,860	186	1.4	12,674	37.6	3.5	10.0
Average 1971-75	11,401	902	7.9	10,499	32.5	3.5	10.8

Source: Statistics Canada.

SNAP BEANSTable of Contents

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SNAP BEANS

Snap beans belong to the legume family of plants, more specifically the species Phaseolus leguminosae. Often referred to as "string" beans, they are different from other beans in that, when immature, both seeds and pods are edible. Other beans are grown for seeds but, snap beans are grown mostly for pods and are marketed as such. There are several varieties of snap beans, some grow close to the ground in bushes and some, with vine-like attributes, grow along frames of poles. The latter are referred to as "pole" beans and the former as "bush" beans. The more common snap beans have round pods and are green or yellow. Green varieties are more popular than yellow or wax beans. There are also green varieties that have flat pods.

Fresh snap beans generally make a good contribution to the human diet although they are not outstanding for any particular nutrient. The cellulose content, however, is valuable in contributing bulk to food intake.

This vegetable ranks as one of intermediate importance in Canada based on total farm value that averaged \$5.4 million for 1971-74. Per capita consumption, fresh and processed, was 4.8 pounds in 1971-74 and has risen in recent years due to increased consumption in processed form.

GROWING AND HARVESTING

Snap beans grow in light or heavy soils, but do better in the former. They also thrive better in mildly or moderately acid soils at a temperature range of 15° to 20°C. Moderate heat and rain is desirable because plants may drop their blossoms or pods under excessive conditions. The marketing season is during July, August, and September.

At one time, the production of snap beans for processing or the fresh market involved a great deal of manual labour, especially in harvesting because beans were picked by hand. Today, processing beans are almost entirely picked by mechanical harvesters thus reducing labour substantially. The changeover to mechanical harvesting initially reduced yields because it involved a single picking operation. However, new varieties have been developed on which pods mature more evenly thus increasing output from a single picking operation. Comparatively low returns per acre remain a problem and the possibility of higher density plantings is being investigated as a solution.

Snap beans for the fresh market can also be harvested mechanically. However, handpicking is preferred because they tend to keep longer and look better upon reaching retail outlets. Moreover, mechanical harvesting does not suit the operation of small market gardeners who doubtless will continue to depend primarily on manual labour. Also, beans for the fresh market are sold in hampers while those for processing are shipped in bulk directly to the processor. Since processing beans require no packaging they are cheaper to produce and market than those for the fresh market.

Though snap beans are not considered to be storable, they can be safely kept for up to 10 days. The optimum temperature is 7°C-8°C under moist conditions such as those provided for leafy vegetables.

ACREAGE, PRODUCTION AND FARM VALUE

Statistics on acreage, production and farm value (see Table 1) cover all snap beans grown commercially. There is no information giving a breakdown on the various kinds of snap beans grown. However, it is believed that most of the commercial output consists of round snap beans, mainly the green variety, with a much smaller share comprising yellow or wax beans.

The 1971 Census shows that 2,912 farmers grew snap beans (see Appendix Table 1) in that year. Though no information exists on the number of growers in prior or subsequent years, it is believed they have been decreasing because of increasing mechanization and specialization.

From 1971-74, the area under snap beans in Canada averaged 23,433 acres (see Table 1). This was 5.6 per cent above the 1961-65 average but 7.4 per cent below that of 1966-70. Approximately 55 per cent of the acreage in 1971-74 was in Quebec compared with almost 62 per cent in 1961-65. During most of the years under review, Quebec accounted for slightly more than half the total Canadian production. In 1971-74, total production averaged 93.3 million pounds per year, 17.8 per cent higher than in 1961-65. Production in 1972 fell markedly, particularly in Quebec, because of unusually poor weather.

About 88 per cent of production in 1971-74 comprised beans for processing, unchanged from 1961-65. (For separate statistics on production for the fresh market and for processing see Appendix Tables 2 and 3.) In Quebec, the average was 95 per cent for processing. However, while production for the fresh market has not been prominent, it did account for 35 per cent of Ontario production in 1971-74. Ontario has increased its share of Canadian fresh market production from 59 per cent in 1961-65 to 70 per cent in the later period. Elsewhere, production for the fresh market declined although not sufficiently to completely offset gains in the processing market.

As shown in Table 1, which includes statistics on both fresh market and processing beans, the average national yield has been increasing, from 3,569 pounds per acre in 1961-65 to 3,981 pounds per acre in 1971-74, a gain of about 12 per cent. This increase principally reflects rising yields of beans for processing; yields for fresh market sale have been declining in Quebec and Ontario, the two major producing provinces (see Appendix Tables 2 and 3). Yields of both fresh market and processing beans, have been the highest in British Columbia and lowest in Quebec. The average Canadian yield of beans for processing, (3,982 pounds per acre) is about the same as that reported for fresh market beans (3,970 pounds per acre) as based on 1971-74 data.

Table 1: Snap Beans: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes &								
Prairies	3,044	2,732	3,110	4,040	3,360	3,020	3,383	+11.1
Quebec	13,672	15,704	13,450	11,360	14,030	12,990	12,958	- 5.2
Ontario	4,052	5,098	4,340	4,690	5,910	6,540	5,370	+32.5
B.C.	1,420	1,770	1,430	1,850	2,190	1,420	1,723	+21.3
Canada	22,188	25,304	22,330	21,940	25,490	23,970	23,433	+ 5.6
- Production, ,000 lb. -								
Maritimes &								
Prairies	9,310	10,250	12,467	16,982	12,909	10,501	13,215	+41.9
Quebec	41,432	58,004	60,030	29,704	52,010	46,990	47,184	+13.9
Ontario	18,329	22,173	20,780	19,829	21,305	28,326	22,560	+23.1
B.C.	10,107	11,308	6,739	9,421	13,922	11,232	10,329	+ 2.2
Canada	79,178	101,734	100,016	75,936	100,146	97,049	93,287	+17.8
- Average Yield, lb. -								
Maritimes &								
Prairies	3,058	3,752	4,009	4,203	3,842	3,477	3,906	+27.7
Quebec	3,030	3,694	4,463	2,615	3,707	3,617	3,641	+20.2
Ontario	4,523	4,349	4,788	4,228	3,605	4,331	4,201	- 7.1
B.C.	7,118	6,389	4,713	5,092	6,357	7,910	5,995	-15.8
Canada	3,569	4,020	4,479	3,461	3,929	4,049	3,981	+11.5
- Farm Value, \$,000 -								
Maritimes &								
Prairies	442	526	633	860	795	769	764	+72.9
Quebec	1,541	2,105	2,117	1,100	2,194	2,530	1,985	+28.8
Ontario	1,180	1,638	1,597	1,921	2,007	2,548	2,018	+71.0
B.C.	536	628	379	501	848	834	641	+19.6
Canada	3,700	4,897	4,726	4,382	5,844	6,681	5,408	+46.2
- Farm Value, ¢ per lb. -								
Maritimes &								
Prairies	4.7	5.1	5.1	5.1	6.2	7.3	5.8	+23.4
Quebec	3.7	3.6	3.5	3.7	4.2	5.4	4.2	+13.5
Ontario	6.4	7.4	7.7	9.7	9.4	9.0	8.9	+39.1
B.C.	5.3	5.6	5.6	5.3	6.1	7.4	6.2	+17.0
Canada	4.7	4.8	4.7	5.8	5.8	6.9	5.8	+23.4

Source: Statistics Canada.

The farm value of the snap bean crop in Canada was \$5.4 million in 1971-74, almost 50 per cent higher than the levels realized, on average, during 1961-65. This has resulted from greater output and higher returns per pound. The average farm value per pound was 5.8 cents in 1971-74 compared with 4.7 cents during 1961-65. For fresh market beans, the corresponding figures are 15.4 cents and 7.9 cents respectively. Not only have fresh market beans been normally much higher priced at the farm-gate than those for processing but they have also tended to rise much more in price, especially in recent years. It is probable that this latter development can be attributed, at least in part, to the more labour-intensive nature of fresh market production (with particularly reference to picking) at a time of generally rising wage costs. While fresh market beans accounted for only 12 per cent of the total production of snap beans in Canada in 1971-74, they nonetheless brought in 32 per cent of the total farm value attributable to this crop.

SUPPLY AND DISPOSITION

Domestic consumption of snap beans, fresh and processed, averaged 105.2 million pounds per year during 1971-74, up about 36 per cent from the average of 77.5 million pounds per year in 1961-65. However, consumption of processed beans rose much more rapidly than consumption of fresh market beans, increasing from an annual average of 52.2 million pounds in 1961-65 to 79.1 million pounds in 1971-74. Although there was a slight increase (3 per cent) in the aggregate consumption of fresh market beans during this period, in per capita terms consumption fell from 1.3 to 1.2 pounds. This compares with a corresponding increase from 2.8 to 3.6 pounds in processed beans. Thus, by 1971-74, processed beans were accounting for three-quarters of all snap bean consumption in Canada. This trend indicates consumer preference for prepared or semi-prepared convenience foods and the more widespread availability of refrigerated shelf space.

Exports in canned or frozen form, in fresh equivalent weight, have decreased greatly. In 1961-65, such exports averaged almost 16.0 million pounds per year but dropped to an annual average of 6.4 million pounds in 1971-74. According to U.S. import data, Canada exported an annual average of 196,000 pounds of fresh snap beans to the United States during 1966-70, and 8,000 pounds during 1971. Thus fresh exports have also declined.

Imports, on the other hand, have been primarily fresh market produce. In 1971-74, total snap bean imports averaged some 16.6 million pounds per year of fresh beans, of which 2.9 million pounds were destined for processing and 1.7 million pounds were processed (frozen) beans. Compared with 1961-65, this represented an increase of about 36 per cent in fresh imports, more than a doubling of imports of fresh beans for processing, and a decrease of some 14 per cent in processed imports. It should be noted, however, that imports of processed snap beans have risen sharply during the 1970s from the low levels of the late 1960s.

Table 2: Snap Beans: Supply and Disposition, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				-	'000 lb.	-		
<u>Total Production</u>	79,178	101,734	100,016	75,936	100,146	97,049	93,287	+ 17.8
<u>Total Imports</u>	14,292	12,606	11,428	19,104	21,374	21,477	18,346	+ 28.4
Fresh	12,256	12,187	11,385	18,565	19,397	17,061	16,602	+ 35.5
Processed - frozen (a)	2,036	419	43	539	1,977	4,416	1,744	- 14.3
<u>Total Supply Available</u>	93,470	114,340	111,444	95,040	121,520	118,526	111,633	+ 19.4
Available for processing or imported processed	68,175	89,229	89,234	69,778	91,176	91,730	85,480	+ 25.4
From domestic production	65,305	88,810	85,686	66,111	87,831	83,804	80,858	+ 23.8
Imported for processing	834	..	3,505	3,128	1,368	3,510	2,878	+245.1
Imported processed	2,036	419	43	539	1,977	4,416	1,744	- 14.3
Available for fresh market	25,295	25,111	22,210	25,262	30,344	26,796	26,153	+ 3.4
From domestic production	13,873	12,924	14,330	9,825	12,315	13,245	12,429	- 10.4
Imported	11,422	12,187	7,880	15,437	18,029	13,551	13,724	+ 20.2
<u>Total Exports</u> ^(h)	15,966	19,396	13,370	7,756	2,744	1,749	6,405	- 59.9
Processed - frozen (a)	1,772	1,570	73	488	717	1,136	604	- 65.9
- canned (b)	14,194	17,826	13,297	7,268	2,027	613	5,801	- 59.1

Table 2: Snap Beans: Supply and Disposition, Canada, 1961-1974 (concl.)

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
					- '000 lb.	-		
<u>Total Domestic Disappearance</u>	77,504	94,944	98,074	87,284	118,776	116,777	105,228	+35.8
Consumed in processed form	52,209	69,833	75,864	62,022	88,432	89,981	79,075	+51.5
From domestic processing	50,173	69,414	75,821	61,483	86,455	85,565	77,331	+54.1
Imported processed	2,036	419	43	539	1,977	4,416	1,744	-14.3
Fresh market consumption	25,295	25,111	22,210	25,262	30,344	26,796	26,153	+ 3.4
From domestic production	13,873	12,924	14,330	9,825	12,315	13,245	12,429	-10.4
Imported	11,422	12,187	7,880	15,437	18,029	13,551	13,724	+20.2

- (a) Converted to fresh equivalent on the basis of 1.43 lb. (e) Tariff Board estimate.
- per 1 lb. frozen product. (f) Two-year average 1964 and 1965.
- (b) Converted to fresh equivalent on the basis of .77 lb. (g) Three-year average omitting 1961 and 1962.
- per 1 lb. canned product. (h) Includes re-exports.
- (c) Four-year average omitting 1961.
- (d) Four-year average omitting 1965.

Source: Derived from Statistics Canada and Agriculture Canada data.

Over the period as a whole, imports gained an increasing share of fresh market consumption. In 1961-65, this share had been 45.2 per cent; by 1971-74 it had increased to 52.5 per cent. In respect of overall imports (for fresh market, processing, and already processed), the corresponding proportions in relation to total domestic disappearance were 18.4 per cent and 17.4 per cent respectively. However, since at the same time exports were declining, this overall improvement in the position of the Canadian grower was more apparent than real. Expressed somewhat differently, total imports increased from the equivalent of 18.1 per cent of total domestic production in 1961-65 to 19.7 per cent in 1971-74. Thus, there was some weakening in the relative position of Canadian producers although, in absolute terms, domestic production showed a moderate increase.

By far, the greatest proportion of imported fresh market beans enter Canada when there are little or no local supplies available, and, thus, basically do not displace domestic production. Appendix Table 5 shows that a small volume of domestic production is available in late June and, on occasion, in early November. However, almost all the domestic harvest is concentrated in July, August, and September. Analysis of fresh market consumption by month for the 1971-74 period (see Appendix Table 6) further shows that Canadian consumers are totally dependent on fresh imports from December to May. In addition, almost all domestic fresh market demand is met by imports in October, November, and June as well. In season, however, domestic production accounts for an estimated 90 per cent of fresh market demand.

Further analysis presented below in Table 3 shows that, on an annual basis, there is evidence of some degree of increased import competition in the Canadian fresh market for this vegetable. In 1961-65, imports are estimated to have comprised about 45 per cent of the domestic fresh market and increased to about 53 per cent in 1971-74. As shown, however, this increase in the relative importance of fresh market imports has chiefly occurred in off-season months when it does not displace domestic production. The share of the domestic market taken by imports in season shows only a minor upward trend between 1961-65 and 1971-74 (roughly from 8 to 10 per cent). Moreover, although estimates in Table 3 cannot be regarded as being precise, it may be pointed out that in-season import competition appears actually to have decreased between 1966-70 and 1971-74.

Table 3: Snap Beans: Fresh Market Production, Imports and Consumption, On-Season and Off-Season, 1961-1974

	Average <u>1961-65</u>	Average <u>1966-70</u>	Average <u>1971-74</u>
<u>Production</u>			
On-season (a)	13,082	12,539	12,220
Off-season (b)	791	385	209
Total	<u>13,873</u>	<u>12,924</u>	<u>12,429</u>
<u>Imports</u>			
On-season (a)	1,062	1,435	1,303
Off-season (b)	10,360	10,752	12,421
Total	<u>11,422</u>	<u>12,187</u>	<u>13,724</u>
<u>Consumption</u>			
On-season (a)	14,144	13,974	13,523
Off-season (b)	11,151	11,137	12,630
Total	<u>25,295</u>	<u>25,111</u>	<u>26,153</u>
<u>Imports as % of Consumption</u>			
On-season (a)	7.5	10.3	9.6
Off-season (b)	92.9	96.5	98.3
Total	45.1	48.5	52.5

(a) July-September.

(b) January-June and October-December.

Source: Derived from Statistics Canada and Agriculture Canada.

IMPORTS

Of the annual average of 16.4 million pounds of fresh beans imported during 1971-75, about 2 per cent went to the Atlantic region, 87 per cent to the central region, and 11 per cent to western Canada (see Appendix Table 8). Imports into the western region increased most rapidly, more than doubling between 1966-70 and 1971-75. Imports into Quebec also grew, increasing their share of Canadian total imports from 36 per cent to 41 per cent.

Well in excess of 90 per cent of Canadian imports of fresh beans come from the United States (see Appendix Table 7). The remainder has, almost exclusively, come from Mexico. Florida has been by far the major source of U.S. exports followed by New Jersey, California, the Carolina, and Virginia. The Maritimes and central regions import almost exclusively from the eastern states, especially from Florida, while the western region imports primarily from California.

EXPORTS

As mentioned, only a small volume of fresh beans are exported, mostly to the United States. Export sales comprise almost exclusively processed beans (frozen or canned). In recent years, processed exports have fallen greatly compared with levels prevailing in 1961-65.

PRICES

The per pound return to the farmer is several times higher when beans are sold on the fresh market than when they are sold to processors. The difference reflects costs of harvesting and packaging as well as, on the demand side, different market conditions.

Table 4: Snap Beans: Prices, Sold for Processing and Sold on the Fresh Market, 1961-74

	<u>Average</u> <u>1961-65</u>	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>
	- ¢ per lb. -						
Sold for processing	4.2	4.1	3.6	4.0	4.5	5.7	4.5
Sold to fresh market	7.9	11.1	12.7	15.7	16.6	16.8	15.4
Total Production	4.7	4.8	4.7	5.8	5.8	6.9	5.8

Source: Table 1, Appendix Tables 2 and 3.

As presented above, in 1971-74, the farm price averaged 4.5 cents per pound for processing sales compared with 15.4 cents per pound for fresh market sales. The average farm price per pound for the fresh market product has risen continuously from 7.9 cents in 1961-65 to 16.8 cents in 1974. In contrast, the return for processing beans did not change appreciably until 1973 and 1974, when it was influenced by the impact of general inflationary forces.

The Board compiled weekly wholesale-to-retail price quotations for both imported and domestic fresh beans for 1974 in five main urban markets. This data can be found in Appendix Tables 11a and 11b and in summary form in Table 5 below. From this data, it seems that, in general, when seasonal prices were lowest and local supplies were most plentiful, offerings of imported beans were not sufficient to establish a price level.⁽¹⁾ It appears that prices of domestic beans

(1) However, from import statistics, it was establish that fresh snap beans do enter Canada during the main domestic harvesting season. Volume is apparently not in sufficient quantity through wholesale terminals to warrant price quotations.

were at a level that restrained imports and cleared available domestic supplies. With respect to domestic wholesale prices, these appear to be lowest in Montreal and Toronto and highest in Vancouver and Winnipeg. Import prices also appear to be lower in Montreal and Toronto compared with Vancouver and Halifax.

Table 5: Snap Beans: Wholesale-to-Retail Prices for Domestic and Imported Beans, Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974

	<u>Halifax</u>		<u>Montreal</u>		<u>Toronto</u>		<u>Winnipeg</u>		<u>Vancouver</u>	
	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>
	- ¢ per lb. -									
Jan.	-	-	-	-	-	42.6	-	-	-	40.0
Feb.	-	-	-	41.9	-	40.4	-	38.1	-	39.5
Mar.	-	47.5	-	42.8	-	40.7	-	39.2	-	42.4
Apr.	-	29.4	-	30.4	-	39.8	-	44.6	-	40.7
May	-	36.8	-	35.2	-	34.2	-	-	-	44.0
June	-	42.6	-	38.2	-	36.0	-	-	-	43.8
July	-	34.7	40.5	32.2	28.8	29.6	35.0	-	-	-
Aug.	28.3	30.0	18.0	-	29.0	-	44.4	32.1	37.2	-
Sept.	23.3	-	26.9	25.3	24.8	-	41.7	40.8	35.6	-
Oct.	-	51.7	-	43.9	-	46.2	-	39.8	-	-
Nov.	-	52.7	-	52.5	-	45.5	-	48.5	-	-
Dec.	-	44.5	-	40.7	-	37.6	-	43.0	-	50.0

Source: Appendix Tables 11a and 11 b.

Data pertaining to landed import costs in 1974 are available only for Vancouver and Winnipeg (see Appendix Table 12). From this information, it is apparent that freight and related costs were almost twice as high for imports from Mexico and Florida into Vancouver (around 5.7 cents per pound) as for imports from California (usually about 2.7 cents per pound). Freight costs would offer much more protection to growers for the local market than the current specific duty of $1\frac{1}{2}$ cents.⁽¹⁾

CANADA-UNITED STATES COMPARISONS

The United States produced annually, on average, 1,654 million pounds of snap beans during 1971-74, a volume some 17 times greater than Canadian output (see Appendix Tables 13a-13c). U.S. production in 1971-74 was some 10 per cent greater than the average in 1966-70, while Canadian output declined by 8 per cent; hence Canada's share of North American snap bean production in recent years has tended to decrease.

(1) Appendix Table 12 does not record any duty paid; the invoice documents monitored pertained to entries when, in the western tariff zone, the seasonal rate of $1\frac{1}{2}$ cents per pound was not applicable.

During 1971-74, the United States processed about 82 per cent (1,350 million pounds) of its crop; 18 per cent (304 million pounds) went to the fresh market. Compared with Canada, where 13 per cent of production is for the fresh market, the United States produces proportionately more for the fresh market, in part due to year-round availability. In the United States, as in Canada, production of fresh market beans has shown a downward trend.

Major states producing beans for processing, in order of importance, are Oregon, Wisconsin, New York, and Michigan. These states are adjacent to Canada and have about the same growing season. Florida is by far the major grower of fresh market beans, followed by the Carolinas, California, New York, New Jersey, and Virginia.

U.S. growers currently realize yields per acre that are considerably higher than those in Canada. For 1971-74, the comparative yields averaged 4,668 pounds and 3,981 pounds respectively. This advantage reflects superior yields in the United States in the production of processing beans; yields of fresh market beans have been lower than in Canada. In the case of processing snap beans, the yield differences appear to be much greater when average yields in the main producing regions are compared. For Example, in 1971-74, yields in Quebec averaged 3,767 pounds as against 8,174 pounds in Oregon.

Average farm values for processing and fresh market beans in the major producing areas in the two countries are given below for 1971 to 1974. It can be seen that the average return per pound for processing beans was generally lower in Canada, especially in Quebec. With respect to fresh market beans, average farm values were also generally lower in Canada. Farm values per pound of fresh market beans in Ontario, the main producing region in Canada, were generally below those in Florida and New York. This suggests that Canadian growers do not suffer any marked cost disadvantage in the domestic market, especially considering freight and duty costs on imports.

Surveys of production costs for beans grown for processing were conducted in Quebec in 1973 and in Ontario in 1974.⁽¹⁾ According to the Ontario sample survey, 1974 costs totalled 5 cents per pound and were based on a yield of 4,320 pounds per acre, approximately representative of the average provincial yield in 1974. Quebec costs per pound for 1974 were estimated at 4.3 cents, based on adjusting 1973 survey results for certain cost escalations. A somewhat non-representative, high yield basis was used in the Quebec survey (4,600 pounds per acre) whereas the Quebec provincial yield in 1974 was substantially less (3,742 pounds per acre). An allowance for the lower Quebec yield would probably place Quebec production costs close to the Ontario level of 5 cents per pound. A comparison of 1974 costs with farm prices, or grower returns, in that year (6.2 and 4.9 cents per pound for Ontario and Quebec respectively) suggests higher net returns went to Ontario growers than to Quebec growers.

(1) Background paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

Table 6: Snap Beans: Average Farm Value per Pound for Processing and for the Fresh Market, Canada and the United States, 1971 to 1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- ¢ per lb. -				
<u>Processing Beans</u>					
Canada	3.6	4.0	4.5	5.7	4.5
Quebec	3.0	3.1	3.7	4.9	3.7
Ontario	4.6	4.5	5.2	6.2	5.3
United States	4.6	5.0	5.1	7.9	5.8
Oregon	5.2	5.6	5.4	10.3	6.8
Wisconsin	3.9	4.1	4.3	5.9	4.6
New York	4.4	4.9	5.0	7.1	5.4
<u>Fresh Market Beans</u>					
Canada	12.7	15.7	16.6	16.8	15.4
Ontario	13.1	15.8	16.8	17.0	15.7
United States	14.4	14.8	17.9	18.6	16.4
Florida	15.7	15.6	17.9	20.2	17.3
New York	14.2	16.3	14.7	17.8	15.7

Source: Appendix Tables 2, 3, 13b, and 13c.

The cost of producing processing beans in the United States has been calculated for Wisconsin for the 1970 crop year. That cost was 3.6 cents per pound, very close to the average return to the grower reported in Wisconsin for that year. Average farm values for that state are therefore probably a good indication of the level and increase in unit costs since that time. Comparing average farm values per pound, the cost of producing processing beans in Wisconsin probably equals that in Quebec and Ontario.

With respect to fresh market beans, there was no reliable current production cost information available for either United States or Canada.

TARIFF CONSIDERATIONS

Both yellow and green snap beans are classified under tariff item 8703-1 - Beans, green. However, inasmuch as the description of this tariff item is confined to green beans, and does not specify yellow beans, the latter variety has occasionally been entered under tariff item 8731-1 covering fresh vegetables "n.o.p."⁽¹⁾

(1) Estimates by the Board indicate that most imports of snap beans enter under tariff item 8703-1; in 1974, less than 1 per cent of total snap bean imports were entered under tariff item 8731-1 pertaining to fresh vegetables, "n.o.p."

Tariff item 8703-1 is described as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
8703-1 Beans, green per pound	Free	1½ cts. or Free	1½ cts. or Free

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 14 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty is not in effect.

When subject to specific rates of duty and imported in packages five pounds or less, each, see additional duty following item 8731-1.

The M.F.N. rate under tariff item 8731-1 is Free. Moreover, imports under this tariff item, unlike those under tariff item 8703-1, are not liable for the additional duty on pre-packed vegetables. It appears therefore that snap beans imported under the n.o.p. item, during the period when the specific duty under tariff item 8703-1 is in effect, receive favourable tariff treatment, and that the Canadian grower, to that extent, does not receive protection.

With respect to tariff item 8703-1, the rate under the British Preferential Tariff has traditionally been Free. The Most-Favoured-Nation Tariff, as shown in Table 7, was lowered from 27½ p.c. in 1935 to 10 p.c. in 1939. In 1948, the seasonal specific duty of 1½ cents per pound was introduced with an application for 14 weeks only, a 10 p.c. rate being in effect the remainder of the year. In 1959, while the seasonal specific duty was retained, the 10 p.c. off-season rate was eliminated. At that time, the provision for the additional packaging duty was introduced. The present item has been in effect since 1959.

Table 7: Snap Beans: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u> (a)
1935	Free	27½ p.c.	30 p.c.
1936-1938	Free	15 p.c.	30 p.c.
1939-1947	Free	10 p.c.	30 p.c.
1948-1959 (April 9)	Free	1½ cts. (b) (14 weeks) or 10 p.c.	1½ cts. (c) (14 weeks) or 10 p.c.
1959 (April 10)	Free	1½ cts. (d) (14 weeks) or Free	1½ cts. (d) (14 weeks) or Free

(a) Applicable to imports from the United States until Dec. 31, 1935.

(b) Not applied until 1950.

(c) Revised June 1, 1950 from 30 p.c.

(d) Effective April 10, 1959, packages weighing five pounds or less, have been subject to an additional duty at 5 p.c. M.F.N. and 10 p.c. Gen.

The rate under the General Tariff was 30 p.c. until 1950, at which time imports under this tariff were accorded the same treatment as those under the Most-Favoured-Nation Tariff. The M.F.N. rate and the provisos thereto are bound under GATT at $1\frac{1}{2}$ cents or Free. The M.F.N. rate is the only one of practical concern; imports under the British Preferential and General Tariff have been negligible.

The Canadian Horticultural Council proposed an increase in the seasonal specific M.F.N. duty from $1\frac{1}{2}$ cents to 4 cents per pound and a minimum seasonal ad valorem rate of 20 per cent. It also proposed an extension of the period for application of the seasonal duty from 14 weeks to 16 weeks, as well as an increase in the additional duty on snap beans when imported in individual packages of 5 pounds or less. The Council also proposed that the definition "green" be dropped from the present tariff item.

The extent to which the seasonal duty has been applied is indicated in Appendix Table 14 covering the period 1966-75. In the Maritimes, the duty has been in effect, usually from July to November, for the full 14 weeks authorized during 1971-75. In central Canada, the duty was, for the most part, also in effect for the full 14 weeks during the July to October period. In western Canada, the duty was infrequently applied between 1966 and 1972 but in subsequent years was in effect for the full 14 weeks.

Regarding the present application of the seasonal duty, and the Horticultural Council's request for an extension from 14 to 16 weeks, it is noted that, for the 1971-74 period, 98 per cent of the fresh market snap bean crop was harvested in July, August, and September, a period of 13 weeks. A 16-week period would embrace either June or October (or in part both months). During the additional two weeks the rate of duty would, in effect, be raised from Free to 4 cents per pound if the Council's proposal were implemented, or to $1\frac{1}{2}$ cents per pound if the current specific duty were retained. The longer period would, therefore, constitute an added cost to the consumer at a time when he is largely dependent on imports.

Appendix Table 15 presents data pertaining to import prices, and to the ad valorem equivalent of the $1\frac{1}{2}$ -cent specific duty. The statistics presented in this appendix table refer only to fresh market imports. There has been a reduction in the actual protection conferred by the prevailing $1\frac{1}{2}$ -cent specific duty on increased fresh market prices. For 1966-70, the ad valorem equivalent of the specific duty was 11.2 per cent dropping to 8.6 per cent for 1971-75 with the ad valorem equivalent for 1975 at 7.7 per cent.

The Board estimated the additional costs and benefits implied in the Horticultural Council's request for a 4-cent specific duty applied for a 16-week period; the usual assumptions, explained earlier in this Reference, were employed. Based on 1974 data, the Council's request would appear to entail an added consumer cost for fresh market snap beans of \$676,300. This would mean, on average, for a family of four an additional cost of 12 cents annually. At an average yield of 3,970 pounds per acre, as in 1974, the grower would receive an additional \$100 per acre.

At present, both fresh market beans and beans for processing are imported under the same tariff item 8703-1 at an M.F.N. duty of $1\frac{1}{2}$ cents. The Canadian Food Processors Association, in its brief, proposed that snap beans for processing be accorded a separate tariff item, "Beans for Manufacture," with a 14-week seasonal M.F.N. rate of 10 p.c. and free entry to apply during the remainder of the year.

A separate item for snap beans for processing would appear to merit consideration in view of the very different price levels prevailing for fresh market beans as against beans sold for processing; in terms of ad valorem equivalents, the degree of protection provided by the $1\frac{1}{2}$ -cent M.F.N. specific duty is also much different. It is estimated, for example, that with an average import price for processing beans in 1974 of some 8 cents per pound, the specific duty was equivalent to a rate of 19 p.c. This compares with a much lower ad valorem equivalent of 8.7 per cent for snap beans entered for fresh market sale, given an average 1974 price of 17.2 cents per pound. The introduction of a separate item for the latter would permit a useful flexibility in considering any changes to the existing tariff structure.

CONCLUSIONS

Canada's snap bean crop averaged 93.3 million pounds in 1971-74 constituting an increase of some 18 per cent compared with production in 1961-65. Although the volume of this crop fell markedly in 1972, due to unusually poor growing conditions, annual production levels during the 1970s have otherwise been close to those recorded for the period 1966-70. This vegetable is predominantly grown for processing; acquisitions by domestic processors represented 87 per cent of crop output in 1971-74.

With respect to the domestic market for processing snap beans, imports have increased in recent years to about 2.9 million pounds in 1971-74. However, Canada is essentially self-sufficient in meeting the domestic demand for processing with local growers supplying some 97 per cent of all acquisitions for processing. There is, also, only little import competition from snap beans entered in the already processed form; such processed imports accounted for only a very minor share of domestic consumption in the frozen or canned form. Whereas Canada has in past years enjoyed a sizable export sale in processed snap beans (mainly canned), exports in the processed form have fallen off notably in the 1970s.

With reference to the domestic fresh market, the greatest proportion of imports enter when there is little or no local supply available and hence imports do basically not compete with domestically grown snap beans. In the three-month on-season period during which the Canadian crop is harvested, domestic growers meet an estimated 90 per cent of fresh market demand. Fresh market imports have risen in recent years and, on an annual basis, there is an indication of increased import competition. However, this increase in the relative importance of fresh market imports has chiefly taken place in off-season months when it does not displace domestic production. Between 1966-70 and 1971-74, there is little evidence of increasing import competition during the three on-season months.

It may also be pointed out that, both for snap beans for processing and for the fresh market, average farm values per pound (farm price) have been lower in Canada than in the United States in recent years. This suggests that there are no price advantages accruing to U.S. growers competing in the Canadian domestic market.

The protection conferred against imports of fresh market snap beans has been subject to a degree of erosion following the increase in the f.o.b. value of imported snap beans. The Board felt, that in view of this erosion, there is justification for an increase in the specific duty from its present level to 2 cents per pound. A minimum ad valorem duty of 10 per cent is recommended to guard against future erosion.

The Board further recommends that a separate item be introduced for snap beans grown for processing. A specific duty of 1 cent per pound is recommended for this item under both the Most-Favoured-Nation and General Tariff with also a minimum ad valorem rate of 10 per cent. The B.P. rate would be Free. The Board recommends that this duty be in effect on a year-round basis.

While the Horticultural Council proposed a two-week extension in the seasonal duty period, the Board is of the opinion that the present period is sufficient.

Snap beans when imported in packages of 5 pounds or less will continue to be subject to the additional packaging duties at rates of B.P. Free, 5 p.c. M.F.N. and 10 p.c. Gen.

The Board advocates certain minor nomenclature improvements; present tariff item 8703-1 refers to "Beans, green" with an ambiguity remaining as to the tariff classification of yellow or wax snap beans. As noted, the latter have occasionally been entered under the "n.o.p." item pertaining to fresh vegetables. The intent of the nomenclature proposed by the Board, "Snap beans, n.o.p.," is to include in the recommended item both green and yellow snap beans as well as any other types of "string" beans.

RECOMMENDATIONS

The Board recommends that present tariff item 8703-1 be deleted from Schedule "A" of the Customs Tariff and that the following revised schedule be inserted.

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Beans, snap, n.o.p. ... per pound	Free	2 cts. but not less than 10 p.c., or Free	2 cts. but not less than 10 p.c., or Free

In any 12 month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 14 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

Beans, snap, for processing			
..... per pound	Free	1 ct. but not less than 10 p.c.	1 ct. but not less than 10 p.c.

**Snap Beans: Acreage and Number of Farms, by Province
and Region, 1961 and 1971**

	1961		1971		
	<u>No. of Acres</u>	<u>Acreage as % of Total</u>	<u>No. of Acres</u>	<u>Acreage as % of Total</u>	<u>No. of Farms Reporting</u>
Atlantic Region	894	6.2	3,326	13.4	307
Nfld.	1	*	1	*	1
P.E.I.	205	1.4	6	*	23
N.S.	636	4.4	2,164	8.7	169
N.B.	52	0.4	1,155	4.7	114
Central Region	11,764	81.9	18,509	74.7	2,193
Que.	8,923	62.1	13,452	54.3	1,171
Ont.	2,841	19.8	5,057	20.4	1,022
Western Region	1,714	11.9	2,931	11.8	411
Man.	310	2.2	471	1.9	114
Sask.	11	0.1	20	0.1	45
Alta.	521	3.6	503	2.0	65
B.C.	872	6.1	1,937	7.8	187
Canada ^(a)	14,372	100.0	24,766	100.0	2,912

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Snap Beans, Fresh: Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound,
by Province, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Maritimes	112	92	90	90	110	120	103	- 8.0
Quebec	1,056	1,058	1,160	1,140	1,040	1,070	1,103	+ 4.5
Ontario	826	898	1,270	1,660	1,710	1,540	1,545	+87.0
B.C.	..	..	70	70	70	70	70	..
Canada	..	..	2,590	2,960	2,930	2,800	2,820	..
- Production, '000 lb. -								
Maritimes	425	330	401	372	365	311	362	-14.8
Quebec	3,076	3,219	3,828	1,596	2,288	2,386	2,525	-17.9
Ontario	5,801	6,174	7,434	9,141	7,705	7,326	7,902	+36.2
B.C.	597	448	399	389	442	402	408	-31.7
Canada	9,899	10,171	12,062	11,498	10,800	10,425	11,196	+13.1
- Average Yield, lb. -								
Maritimes	3,795	3,587	4,456	4,133	3,318	2,592	3,515	- 7.4
Quebec	2,913	3,043	3,300	1,400	2,200	2,230	2,289	-21.4
Ontario	7,023	6,875	5,854	5,507	4,506	4,757	5,115	-27.2
B.C.	..	..	5,700	5,557	6,314	5,743	5,829	..
Canada	..	..	4,657	3,884	3,686	3,723	3,970	..
- Farm Value, \$'000 -								
Maritimes	41	44	73	74	78	69	74	+ 80.5
Quebec	201	278	424	226	332	350	333	+ 65.7
Ontario	495	743	977	1,445	1,297	1,248	1,242	+150.9
B.C.	48	60	60	60	82	84	72	+ 50.0
Canada	785	1,124	1,534	1,805	1,789	1,751	1,720	+119.1
- Farm Value, ¢ per lb. -								
Maritimes	9.6	13.3	18.2	19.9	21.4	22.2	20.4	+112.5
Quebec	6.5	8.6	11.1	14.2	14.5	14.7	13.2	+103.1
Ontario	8.5	12.0	13.1	15.8	16.8	17.0	15.7	+ 84.7
B.C.	8.0	13.4	15.0	15.4	18.6	20.9	17.6	+120.0
Canada	7.9	11.1	12.7	15.7	16.6	16.8	15.4	+ 94.9

Source: Statistics Canada.

Appendix Table 3

Snap Beans, for Processing: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes & Prairies	2,932	2,640	3,020	3,950	3,250	2,900	3,280	+11.9
Quebec	12,616	14,646	12,290	10,220	12,990	11,920	11,855	- 6.0
Ontario	3,226	4,060	3,070	3,030	4,200	5,000	3,825	+18.6
B.C.	..	..	1,360	1,780	2,120	1,350	1,653	..
Canada	..	..	19,740	18,980	22,560	21,170	20,613	..
- Production, '000 lb. -								
Maritimes & Prairies	8,884	9,919	12,066	16,610	12,544	10,190	12,853	+44.7
Quebec	38,355	54,786	56,202	28,108	49,722	44,604	44,659	+16.4
Ontario	12,529	15,999	13,346	10,688	13,600	21,000	14,659	+17.0
B.C.	9,510	10,860	6,340	9,032	13,480	10,830	9,921	+ 4.3
Canada	69,279	91,563	87,954	64,438	89,346	86,624	82,091	+18.5
- Average Yield, lb. -								
Maritimes & Prairies	3,030	3,757	3,995	4,205	3,860	3,514	3,919	+29.3
Quebec	3,040	3,741	4,573	2,750	3,828	3,742	3,767	+23.9
Ontario	3,884	3,941	4,347	3,527	3,238	4,200	3,832	- 1.3
B.C.	..	..	4,662	5,074	6,358	8,022	6,002	..
Canada	..	..	4,456	3,395	3,960	4,092	3,982	..
- Farm Value, \$'000 -								
Maritimes & Prairies	401	483	560	786	717	700	691	+72.3
Quebec	1,339	1,827	1,693	874	1,862	2,180	1,652	+23.4
Ontario	686	895	620	476	710	1,300	777	+13.3
B.C.	488	568	319	441	766	750	569	+16.6
Canada	2,915	3,772	3,192	2,577	4,055	4,930	3,689	+26.6
- Farm Value, ¢ per lb. -								
Maritimes & Prairies	4.5	4.9	4.6	4.7	5.7	6.9	5.4	+20.0
Quebec	3.5	3.3	3.0	3.1	3.7	4.9	3.7	+ 5.7
Ontario	5.5	5.6	4.6	4.5	5.2	6.2	5.3	- 3.6
B.C.	5.1	5.2	5.0	4.9	5.7	6.9	5.7	+11.8
Canada	4.2	4.1	3.6	4.0	4.5	5.7	4.5	+ 7.1

Source: Statistics Canada.

Snap Beans: Supply and Disposition Ratios, Canada, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
			-	per cent	-		
<u>Per Cent of Domestic Production:</u>							
Sold for Processing	82.5	87.3	85.7	87.1	87.7	86.4	86.7
Sold for Domestic Fresh Market	17.5	12.7	14.3	12.9	12.3	13.6	13.3
<u>Total Imports as Per Cent:</u>							
of Total Supply Available	15.3	11.0	10.3	20.1	17.6	18.1	16.4
of Total Domestic Disappearance	18.4	13.3	11.7	21.9	18.0	18.4	17.4
<u>Processed Imports as Per Cent:</u>							
of Consumption in Processed Form	3.9	0.6	0.1	0.9	2.2	4.9	2.2
of Total Domestic Disappearance	2.6	0.4	*	0.6	1.7	3.8	1.7
<u>Per Cent of Fresh Market Consumption:</u>							
From Domestic Production	54.8	51.5	64.5	38.9	40.6	49.4	47.5
From Imports	45.2	48.5	35.5	61.1	59.4	50.6	52.5
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	67.4	73.6	77.4	71.1	74.5	77.1	75.1
Consumed in Fresh Form	32.6	26.4	22.6	28.9	25.5	22.9	24.9
Net Imports ^(a) as % of Total Domestic Disappearance	-2.2	-7.2	-2.0	+13.0	+15.7	+16.9	+11.3

(a) Total imports minus total Exports.

Source: Table 2.

Appendix Table 5

Snap Beans: Estimated Monthly Distribution of Fresh Shipments^(a), 1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
			- thousand pounds -			
Jan.	-	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
May	-	-	-	-	-	-
June	64	25	86	2	12	-
July	3,048	2,919	5,159	2,199	2,783	1,536
Aug.	6,744	6,540	5,632	5,792	6,761	7,974
Sept.	2,747	2,761	2,980	1,619	2,722	3,722
Oct.	321	173	430	213	37	13
Nov.	-	11	43	-	-	-
Dec.	-	-	-	-	-	-
Total	12,924	12,429	14,330	9,825	12,315	13,245

(a) Domestic production for domestic fresh market.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 6

Snap Beans: Estimated Monthly Distribution of Fresh Market Consumption, 1961-1974

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent	-	- thousand pounds	-	-	per cent
Jan.	100.0	100.0	-	1,190	1,190	100.0
Feb.	100.0	100.0	-	995	995	100.0
Mar.	100.0	100.0	-	1,233	1,233	100.0
Apr.	100.0	100.0	-	1,428	1,428	100.0
May	100.0	100.0	-	1,903	1,903	100.0
June	80.4	96.6	25	1,877	1,902	98.7
July	6.6	24.7	2,919	777	3,696	21.0
Aug.	2.5	2.3	6,540	154	6,694	2.3
Sept.	19.3	9.2	2,761	372	3,133	11.9
Oct.	78.9	78.9	173	1,190	1,363	87.3
Nov.	100.0	100.0	11	1,328	1,339	99.2
Dec.	100.0	100.0	-	1,278	1,278	100.0
Total	45.2	48.5	12,429	13,724	26,153	52.5

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 7

Snap Beans: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>U.S.A.</u>	<u>Mexico</u>	<u>Other</u>	<u>Total</u>
		- thousand pounds -		
1966	11,554	143	-	11,697
1967	12,333	209	-	12,542
1968	12,137	246	-	12,383
1969	12,358	380	-	12,738
1970	10,853	721	-	11,573
Average 1966-70	11,847	340	-	12,187
1971	10,921	459	6	11,385
1972	17,742	822	1	18,565
1973	18,340	1,051	6	19,397
1974	16,394	659	8	17,061
1975	14,999	470	3	15,471
Average 1971-75	15,679	692	5	16,376

Source: Statistics Canada.

Appendix Table 8

Snap Beans: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		- thousand pounds -				
Atlantic Region	295	283	327	366	433	467
Nfld.	-	2	1	3	-	27
P.E.I.	5	5	2	8	5	7
N.S.	153	107	143	152	129	137
N.B.	136	170	181	203	299	296
Central Region	11,140	10,099	14,994	16,852	15,200	13,788
Que.	4,367	4,200	7,363	7,229	8,658	6,277
Ont.	6,773	5,899	7,631	9,623	6,543	7,511
Western Region	752	1,003	3,244	2,178	1,427	1,216
Man.	60	96	151	135	166	112
Sask.	8	13	14	22	10	28
Alta.	56	94	265	249	221	235
B.C.	629	800	2,813	1,772	1,030	841
Canada	12,187	11,385	18,565	19,397	17,061	15,471

Source: Statistics Canada.

Appendix Table 9

Snap Beans: Imports by Month, 1966-1975^(a)

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	1,129	9.3	1,341	8.2	1,400	1,320	1,425	1,404
Feb.	835	6.9	1,204	7.4	1,381	1,232	1,054	1,580
Mar.	910	7.5	1,158	7.1	1,176	1,388	942	1,315
Apr.	1,433	11.8	1,424	8.7	1,178	1,726	1,356	1,466
May	1,378	11.3	1,639	10.0	1,814	1,925	1,595	1,558
June	1,795	14.7	1,915	11.7	2,331	1,481	1,864	2,024
July	999	8.2	1,409	8.6	1,102	1,557	2,210	1,409
Aug.	158	1.3	768	4.7	1,686	1,318	366	193
Sept.	278	2.3	939	5.7	1,949	2,101	234	276
Oct.	1,198	9.8	1,948	11.9	1,810	2,523	3,700	1,176
Nov.	1,021	8.4	1,227	7.5	1,182	1,502	1,138	1,388
Dec.	<u>1,054</u>	<u>8.6</u>	<u>1,403</u>	<u>8.6</u>	<u>1,554</u>	<u>1,324</u>	<u>1,177</u>	<u>1,681</u>
Total	12,187	100.0	16,376	100.0	18,565	19,397	17,061	15,471

(a) Includes imports for fresh market consumption and for processing.

Source: Statistics Canada.

Appendix Table 10

Snap Beans: Percentage Distribution of Fresh Market Imports
from United States, by State of Origin, by
Region, 1972-1974

	<u>Cal.</u>	<u>Fla.</u>	<u>N.J.</u>	<u>N. & S.</u> <u>Carolina</u>	<u>Va.</u>	<u>Others</u>	<u>Total</u>
- per cent -							
<u>1972</u>							
Maritime Region	-	71.5	18.1	1.0	-	9.3	100.0
Central Region	2.4	66.5	19.7	5.1	3.9	2.5	100.0
Western Region	93.1	2.4	-	-	-	4.5	100.0
Canada	8.5	62.2	18.3	4.7	3.6	2.7	100.0
<u>1973</u>							
Maritime Region	0.4	73.6	13.2	4.0	2.2	6.6	100.0
Central Region	1.7	70.3	16.6	7.4	3.7	0.3	100.0
Western Region	89.2	5.4	-	-	-	5.4	100.0
Canada	5.8	67.3	15.8	6.9	3.5	0.7	100.0
<u>1974</u>							
Maritime Region	-	64.4	14.6	7.9	8.4	4.6	100.0
Central Region	0.9	72.1	18.0	6.2	2.7	0.2	100.0
Western Region	88.4	9.0	-	-	-	2.5	100.0
Canada	6.1	68.2	16.9	5.8	2.6	0.4	100.0

Source: Agriculture Canada.

Appendix Table 11a

Snap Beans: Weekly Wholesale to Retail Prices at Halifax, Montreal and Toronto, 1974

Week Ending	Halifax			Montreal			Toronto		
	Fla.	Wax	N.S. Green & Wax	Fla.(a) Green	Wax	Que. Green	Fla.(c) Green	Wax	Ont. Green
	-	30 lb.	-	-	30 lb.	-	-	30 lb.	-
Jan. 4							47.5	47.5	
11							44.2	44.2	
18							40.8		
25							36.7	37.5	
Feb. 1							31.3	39.6	
8							40.8	41.7	
15				39.2	45.8		42.5	45.8	
22				36.7	45.8		35.8	45.8	
Mar. 1				39.2	44.2		40.8	45.8	
8				40.8	44.2		50.8		
15				42.5	45.8		45.8		
22				42.5	47.5		30.4	48.3	
29	56.7			35.0	46.3		27.9	35.8	
Apr. 5	30.0			23.3	32.5		22.9	31.7	
12	28.3			22.9	35.0		21.7	31.7	
19	28.3			24.2	38.3		24.2	40.8	
26	30.8			25.8	40.8		27.9	37.5	
3	30.8			30.0	37.1		30.4	37.5	
10	33.3	43.3		29.6	41.7		27.5	40.8	
17	34.2	45.0		25.4	38.3		24.6	40.8	
24	30.8	45.0		29.2	40.8		30.8	38.3	
31	30.8	38.3		37.1	42.5		33.3	37.5	
June 7	36.7	38.3		40.8	44.2		35.8	40.8	
14	42.7	44.0		42.5	47.5		36.7	41.3	
21	42.7	42.7		40.0	47.5		32.9	42.1	
28	40.0	53.3		18.3	24.6		25.4	32.9	

- cents per pound -

Snap Beans: Weekly Wholesale to Retail Prices at Halifax, Montreal and Toronto, 1974

Week Ending	Halifax			Montreal			Toronto		
	Fla.		N.S. Green & Wax	Fla.(a)		Que. Green Wax	Fla.(c)		Ont. Green Wax
	Green	Wax		Green	Wax		Green	Wax	
	-	30 lb.	-	-	30 lb.	-	-	30 lb.	-
				cents per pound					
July 5	27.5	36.3		30.0	37.5	38.6 (b)	29.6		
12	34.2	45.8		32.5	40.0	39.8 (b)			27.3
19	30.0	36.7		21.3	31.7	42.5			23.9
26	30.0	36.7				30.0			28.5
Aug. 2	28.3	33.3				15.7			30.7
9	26.7	31.7	38.0			14.4			28.5
16			25.0			20.0			30.7
23			25.0			21.9			28.5
30			25.0			20.7			23.9
Sept. 6			23.3			24.4			19.4
13			23.3			30.0			21.6
20			23.3	23.8	27.1	26.3			26.2
27				24.6	25.8				31.8
Oct. 4				32.9	25.8				
11				51.7	51.3				
18				50.0	50.0				
25	51.7			45.0	44.2				
Nov. 1	49.3			52.5					
8	50.0			55.0	63.3				
15	50.0	63.3		45.8	61.7				
22	42.7	63.3		50.0	50.8				
29	53.3	50.0		45.8	47.5				
Dec. 6	45.8	50.0		42.5	49.2				
13	41.7	47.3		40.8	44.2				
20	35.7	50.0		29.2	38.8				
27	35.7	50.0		35.4	45.4				
							30.0	49.2	
							49.2	47.5	
							50.0	50.0	
							47.5	47.5	
							49.2		
							44.2	44.2	
							39.6	44.2	
							38.3	44.2	
							35.8	44.2	
							29.6	41.7	
							27.9	38.8	

(a) Includes quotations from New Jersey for green and wax beans for the periods July 5 to July 19 and Sept. 20 to Oct. 4.
Also includes quotations from Virginia from Oct. 11 to Nov. 22.

(b) Ontario 11 qt.

(c) Michigan quotations, Oct. 4 and 11; Virginia quotations, Oct. 18 to Nov. 1.

Source: Agriculture Canada.

Snap Beans: Weekly Wholesale to Retail Prices at Winnipeg
and Vancouver, 1974

Week		Winnipeg		Vancouver			
Ending		Mex., Cal. (a)	Man.	Mex., Fla., Cal.	B.C.		
		Green (b)	Green & Wax	Green	Green	Wax	
		30 lb. (c)		- ctn. 1 lb. -			
- cents per pound -							
Jan.	4						
	11						
	18			40.0			
	25			40.0			
Feb.	1			36.0			
	8			41.0			
	15	37.9		39.0			
	22	38.3		42.0			
Mar.	1	37.1		44.0			
	8	36.3		42.0			
	15	36.7		42.0			
	22	42.5		42.0			
	29	43.3		42.0			
Apr.	5	46.7		40.0			
	12	42.5		41.0			
	19			41.0			
	26						
May	3						
	10						
	17			44.0			
	24			44.0			
	31			44.0			
June	7			49.0			
	14			43.0			
	21			43.0			
	28			40.0			
July	5						
	12						
	19						
	26		35.0				
Aug.	2		44.0				
	9	32.5	45.0				
	16	32.5	45.0			39.0	
	23	31.7	44.0			35.0	38.0
	30	31.7	44.0			34.0	40.0
Sept.	6	45.0	43.0			34.0	40.0
	13	45.0	41.0			32.0	40.0
	20	35.0	41.0			32.0	
	27	38.0					
Oct.	4	40.0					
	11	39.0					
	18	40.0					
	25	40.0					
Nov.	1						
	8						
	15						
	22	47.0					
	29	50.0					
Dec.	6	49.0					
	13						
	20	40.0		50.0			
	27	40.0		50.0			

(a) Quotations from Minnesota from Sept. 6 to Oct. 25.

(b) Includes wax snap beans from Aug. 9 to Oct. 25.

(c) One pound containers from Sept. 6 to Dec. 27.

Source: Agriculture Canada.

<u>Month of Shipment</u>	<u>Winnipeg</u>				<u>Vancouver</u>					
	<u>Source</u>	<u>Cost f.o.b.</u>	<u>Cost of Freight</u>	<u>Duty Paid</u>	<u>Total Landed Cost</u>	<u>Source</u>	<u>Cost f.o.b.</u>	<u>Cost of Freight</u>	<u>Duty Paid</u>	<u>Total Landed Cost</u>
January	-	-	-	-	- cents per pound	Mexico	16.1	5.9	-	22.0
February	-	-	-	-	-	"	24.0	5.7	-	29.7
March	-	-	-	-	-	Mexico	21.4	5.8	-	27.2
April	-	-	-	-	-	"	21.1	5.5	-	26.6
May	-	-	-	-	-	Mexico	24.7	5.8	-	30.5
	-	-	-	-	-	"	26.9	5.7	-	32.6
	-	-	-	-	-	Florida	14.3	5.8	-	20.1
	-	-	-	-	-	Calif.	23.6	2.8	-	26.4
	-	-	-	-	-	"	22.9	2.4	-	25.3
	-	-	-	-	-	"	22.9	2.5	-	25.4
June	-	-	-	-	-	Calif.	21.4	2.6	-	24.0
	-	-	-	-	-	"	22.9	2.8	-	25.7
	-	-	-	-	-	"	18.9	2.8	-	21.7
	-	-	-	-	-	"	19.9	2.8	-	22.7
July	-	-	-	-	-	Calif.	30.0	2.4	-	32.4
	-	-	-	-	-	"	25.0	4.4	-	29.4
	-	-	-	-	-	"	22.5	3.0	-	25.5
October	-	-	-	-	-	Calif.	23.6	2.3	-	25.9
November	Florida	39.2	3.7	-	42.9	Calif.	23.6	2.3	-	25.9
	-	-	-	-	-	"	23.7	2.3	-	26.0
	-	-	-	-	-	"	23.6	2.8	-	26.4
December	Florida	21.7	4.3	-	26.0	-	-	-	-	-

Source: Tariff Board survey.

Snap Beans: Total Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by States,
1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
		- Acreage -				
California		9,700	11,400	10,800	10,100	10,500
Florida(a)		35,600	37,200	37,200	35,100	36,275
Michigan		15,000	16,900	21,000	16,400	17,325
New York		50,100	52,300	56,200	57,400	54,000
Oregon		32,000	35,000	42,000	43,600	38,150
Tennessee		13,000	14,200	18,200	13,300	14,675
Wisconsin		50,100	45,500	55,700	61,000	53,075
Other States		<u>118,010</u>	<u>129,340</u>	<u>136,950</u>	<u>137,170</u>	<u>130,368</u>
Total	343,320	323,510	341,840	378,050	374,070	354,368
		- Production, '000 lb. -				
California		57,200	69,700	64,000	59,700	62,650
Florida(a)		123,900	124,500	122,400	109,800	120,150
Michigan		59,200	80,300	102,500	79,500	80,375
New York		219,200	170,500	241,300	231,800	215,700
Oregon		262,400	259,800	358,700	366,400	311,825
Tennessee		51,200	62,500	55,400	66,600	58,925
Wisconsin		259,500	243,000	275,200	311,100	272,200
Other States		<u>469,700</u>	<u>528,800</u>	<u>567,200</u>	<u>564,100</u>	<u>532,450</u>
Total	1,516,632	1,502,300	1,539,100	1,786,700	1,789,000	1,654,275
		- Average Yield, lb. -				
California		5,897	6,114	5,926	5,911	5,967
Florida(a)		3,480	3,347	3,290	3,128	3,312
Michigan		3,947	4,751	4,881	4,848	4,639
New York		4,375	3,260	4,294	4,038	3,994
Oregon		8,200	7,423	8,540	8,404	8,174
Tennessee		3,938	4,401	3,044	5,008	4,015
Wisconsin		5,180	5,341	4,941	5,100	5,129
Other States		<u>3,980</u>	<u>4,088</u>	<u>4,142</u>	<u>4,112</u>	<u>4,084</u>
Total	4,418	4,644	4,502	4,726	4,783	4,668
		- Farm Value, \$'000 -				
California		5,403	6,336	6,967	8,489	6,799
Florida(a)		19,450	19,465	21,885	22,159	20,740
Michigan		3,522	4,655	6,340	5,999	5,129
New York		12,144	10,936	14,810	19,449	14,335
Oregon		13,514	14,419	19,370	37,922	21,306
Tennessee		2,984	4,024	4,005	5,635	4,162
Wisconsin		10,056	10,048	11,916	18,510	12,633
Other States		<u>32,618</u>	<u>38,021</u>	<u>45,137</u>	<u>53,930</u>	<u>42,427</u>
Total	101,264	99,691	107,904	130,430	172,093	127,530

Appendix Table 13a (concl.)

Snap Beans: Total Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by States,
1966-1974

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>
	- Farm Value, ¢ per lb. -					
California		9.4	9.1	10.9	14.2	10.9
Florida (a)		15.7	15.6	17.9	20.2	17.3
Michigan		5.9	5.8	6.2	7.5	6.4
New York		5.5	6.4	6.1	8.4	6.6
Oregon		5.2	5.6	5.4	10.3	6.8
Tennessee		5.8	6.4	7.2	8.5	7.1
Wisconsin		3.9	4.1	4.3	5.9	4.6
Other States		6.9	7.2	8.0	9.6	8.0
Total	6.7	6.6	7.0	7.3	9.6	7.7

(a) Fresh market only.

Source: U.S. Department of Agriculture.

Appendix Table 13b

Snap Beans: Fresh Market Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, United
States, by States, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Acreage -				
California	2,200	2,300	2,400	3,100	2,500
Florida	35,600	37,200	37,200	35,100	36,275
New Jersey	5,200	5,400	5,700	5,600	5,475
New York	6,100	6,800	6,900	7,700	6,875
North Carolina	7,500	7,750	7,850	6,750	7,463
Virginia	6,600	6,650	6,000	5,400	6,163
Other States	<u>20,110</u>	<u>20,300</u>	<u>19,820</u>	<u>19,340</u>	<u>19,893</u>
Total	83,310	86,400	85,870	82,990	84,643
	- Production, '000 lb. -				
California	17,600	24,700	22,200	27,500	23,000
Florida	123,900	124,500	122,400	109,800	120,150
New Jersey	19,700	18,200	22,400	20,400	20,175
New York	25,600	23,100	28,300	27,000	26,000
North Carolina	28,000	27,100	25,500	23,100	25,925
Virginia	21,900	23,700	18,700	17,600	20,475
Other States	<u>72,300</u>	<u>71,000</u>	<u>63,900</u>	<u>66,900</u>	<u>68,525</u>
Total	309,000	312,300	303,400	292,300	304,250
	- Average Yield, lb. -				
California	8,000	10,739	9,250	8,871	9,200
Florida	3,480	3,347	3,290	3,128	3,312
New Jersey	3,788	3,370	3,930	3,643	3,685
New York	4,197	3,397	4,101	3,506	3,782
North Carolina	3,733	3,497	3,248	3,422	3,474
Virginia	3,318	3,564	3,117	3,259	3,322
Other States	3,595	3,498	3,224	3,459	3,445
Total	3,709	3,615	3,533	3,522	3,595
	- Farm Value, \$'000 -				
California	2,987	3,748	4,313	5,349	4,099
Florida	19,450	19,465	21,885	22,159	20,740
New Jersey	2,597	2,620	4,198	3,630	3,261
New York	3,635	3,765	4,160	4,806	4,092
North Carolina	3,439	3,653	4,774	3,718	3,896
Virginia	2,616	2,852	2,856	2,499	2,706
Other States	<u>9,703</u>	<u>10,263</u>	<u>12,003</u>	<u>12,278</u>	<u>11,062</u>
Total	44,427	46,366	54,189	54,439	49,855
	- Farm Value, ¢ per lb. -				
California	17.0	15.2	19.4	19.5	17.8
Florida	15.7	15.6	17.9	20.2	17.3
New Jersey	13.2	14.4	18.7	17.8	16.2
New York	14.2	16.3	14.7	17.8	15.7
North Carolina	12.3	13.5	18.7	16.1	15.0
Virginia	11.9	12.0	15.3	14.2	13.2
Other States	13.4	14.5	18.8	18.4	16.1
Total	14.4	14.8	17.9	18.6	16.4

Source: U.S. Department of Agriculture.

Appendix Table 13c

Snap Beans: Processing Market Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, United States, by States, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Acreage -				
California	7,500	9,100	8,400	7,000	8,000
Michigan	12,400	14,400	18,300	13,800	14,725
New York	44,000	45,500	49,300	49,700	47,125
Oregon	32,000	35,000	42,000	43,600	38,150
Tennessee	11,800	12,800	16,700	12,000	13,325
Virginia	2,500	3,700	3,300	2,700	3,050
Wisconsin	50,100	45,500	55,700	61,000	53,075
Other States	<u>79,900</u>	<u>89,440</u>	<u>98,480</u>	<u>101,280</u>	<u>92,275</u>
Total	240,200	255,440	292,180	291,080	269,725
	- Production, '000 lb. -				
California	39,600	45,000	41,800	32,200	39,650
Michigan	50,100	72,000	93,300	71,200	71,650
New York	193,600	147,400	213,000	204,800	189,700
Oregon	262,400	259,800	358,700	366,400	311,825
Tennessee	46,000	56,300	49,800	60,700	53,200
Virginia	8,500	12,200	12,800	11,200	11,175
Wisconsin	259,500	243,000	275,200	311,100	272,200
Other States	<u>333,600</u>	<u>391,100</u>	<u>438,700</u>	<u>439,100</u>	<u>400,625</u>
Total	1,193,300	1,226,800	1,483,300	1,496,700	1,350,025
	- Average Yield, lb. -				
California	5,280	4,945	4,976	4,600	4,956
Michigan	4,040	5,000	5,098	5,159	5,866
New York	4,400	3,240	4,320	4,121	4,025
Oregon	8,200	7,423	8,540	8,404	8,174
Tennessee	3,898	4,398	2,982	5,058	3,992
Virginia	3,400	3,297	3,879	4,148	3,664
Wisconsin	5,180	5,341	4,941	5,100	5,129
Other States	<u>4,175</u>	<u>4,373</u>	<u>4,455</u>	<u>4,336</u>	<u>4,342</u>
Total	4,968	4,803	5,077	5,142	5,005
	- Farm Value, \$'000 -				
California	2,416	2,588	2,654	3,140	2,700
Michigan	2,275	3,485	4,758	4,414	3,733
New York	8,509	7,171	10,650	14,643	10,243
Oregon	13,514	14,419	19,370	37,922	21,306
Tennessee	2,438	3,237	2,913	4,644	3,308
Virginia	472	738	717	913	710
Wisconsin	10,056	10,048	11,916	18,510	12,633
Other States	<u>15,584</u>	<u>19,852</u>	<u>23,263</u>	<u>33,468</u>	<u>23,042</u>
Total	55,264	61,538	76,241	117,654	77,674

Appendix Table 13c (concl.)

Snap Beans: Processing Market Acreage, Production, Yield per
Acre, Farm Value and Farm Value per Pound,
United States, by States, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Farm Value, ¢ per lb. -				
California	6.1	5.8	6.3	9.8	6.8
Michigan	4.5	4.8	5.1	6.2	5.2
New York	4.4	4.9	5.0	7.1	5.4
Oregon	5.2	5.6	5.4	10.3	6.8
Tennessee	5.3	5.7	5.8	7.7	6.2
Virginia	5.6	6.0	5.6	8.2	6.4
Wisconsin	3.9	4.1	4.3	5.9	4.6
Other States	4.7	5.1	5.3	7.6	5.8
Total	4.6	5.0	5.1	7.9	5.8

Source: U.S. Department of Agriculture.

Snap Beans: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year	Maritime Region			(b) Central Canada			(c) Western Canada		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	July 6	Oct. 12	98	June 23	Sept. 29	98	-	-	-
1967	-	-	-	June 27	Oct. 3	98	-	-	-
1968	-	-	-	June 25	Oct. 1	98	July 11	Oct. 17	98
1969	-	-	-	June 26	Oct. 2	98	-	-	-
1970	July 24	Sept. 17	55	June 18	Sept. 24	98	-	-	-
1971	July 22	Oct. 28	98	June 30	Oct. 6	98	-	-	-
1972	July 21	Oct. 27	98	June 29	Oct. 5	98	-	-	-
1973	July 20	Oct. 26	98	-	-	-	July 4	Oct. 10	98
1974	July 26	Oct. 31	97	July 3	Oct. 4	93	July 16	Oct. 21	97
1975	July 29	Nov. 3	97	-	-	-	July 29	Nov. 3	97

(a) Government fiscal year commencing April 1st; ending March 31st following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Snap Beans: Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Imports				(a) Price f.o.b. ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.			
1966	11,697	10,307	88.1	1,391	12.4	1.5	12.1
1967	12,542	11,218	89.4	1,324	14.4	1.5	10.4
1968	12,383	11,559	93.3	824	13.3	1.5	11.3
1969	12,738	11,916	93.5	822	14.5	1.5	10.3
1970	11,573	9,948	86.0	1,625	12.0	1.5	12.5
Average 1966-70	12,187	10,990	90.2	1,197	13.4	1.5	11.2
1971	7,880	7,549	95.8	331	16.7	1.5	9.0
1972	15,437	12,844	83.2	2,593	18.0	1.5	8.3
1973	18,029	16,983	94.2	1,046	15.8	1.5	9.5
1974	13,551	9,933	73.3	3,618	17.2	1.5	8.7
1975	15,471	15,093	97.6	378	19.6	1.5	7.7
Average 1971-75	14,074	12,480	88.7	1,593	17.5	1.5	8.6

(a) Fresh market average price for July, August and September only.

Source: Derived from Statistics Canada data.

BEETS

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BEETS

The beet, garden beet or table beet, known in Britain as beet-root, is the edible root, which may be marketed with or without leaves attached, of certain varieties of the species Beta vulgaris. Other varieties produce roots used for other feed purposes, such as the mangel-wurzel or mangold, used for animal food, and the sugar-beet used for the extraction of sugar; these latter varieties, when imported into Canada are classified under tariff items not specifically included in Reference No. 152.

Beet greens, the leaves of the varieties with edible roots, are also used as a vegetable. On importation into Canada such greens would be classified with vegetables, n.o.p., as is the variety known variously as chard, Swiss Chard, spinach beet or leaf beet (B. vulgaris var. cicla) which is cultivated for its edible leaves, leafstalks and midribs. These products are considered under "vegetables, n.o.p." and are not further discussed in this section of the report.

Beta vulgaris is said to have originated in the Mediterranean area as far back as the second or third century, B.C. In the United States, the red beet was listed as early as 1806, but more modern varieties have been introduced in relatively recent years. In modern times, beets have become an important vegetable, widely grown in Canada and other countries as a home and market garden vegetable for fresh use, and cultivated in more limited areas as a commercial crop. Within the past decade or so, the larger part of commercial beet production in Canada has been diverted into processing uses. Fresh beets may be prepared and served in a variety of ways. However, today, most beets are sold in processed forms, e.g., diced, sliced, whole canned or bottled beets, and pickled beets.

According to statistical data, beet production ranks about sixteenth in value in Canada among vegetable crops. Per capita disappearance is about 1.9 pounds per capita and appears to be declining. However, since beets are widely grown in home gardens and mixed market gardens, and some of such small-scale production is not statistically reported, statistics may underestimate the true importance of beets as a fresh vegetable.

Beet roots are a fair source of minerals, (calcium, phosphorus, iron, sodium, potassium, magnesium), but a poor source of vitamins. Beet greens, however, have a very high content of Vitamin A.

GROWING, HARVESTING AND STORAGE

Beets are grown over a wide range of soils and climates. The principal problems with the growing of beets are: they do not thrive in very hot weather, which produces light zones in the beet-root; their young seedlings are small and easily overcome by weeds, making it difficult to obtain a good stand; and their "seeds" are really fruits containing several seeds, thus necessitating hand thinning to prevent crowding in the row. Apart from these problems, however, beet growing is relatively simple. Therefore, provided beets are given a good start by working the soil into a friable

condition before planting, and provided weeds are kept under control, their cultivation is a relatively simple task. Hand harvesting for bunching beets is one of the major costs, but machine harvesting is now used for processing beets, and for many "topped" beets for the fresh market.

In most areas, beets can be planted at any time from about three weeks before the last killing frost in spring, until about six weeks before the average date of the first frost in autumn. In Canada, the harvesting season for beets extends from early July to the end of November.

When grown for the fresh market, beets are usually harvested upon reaching $1\frac{3}{4}$ to 2 inches in diameter. Fresh market beets are pulled by hand and tied in bunches, or topped and packed in 50-lb. bags or bushel baskets or in cellophane packages, usually containing 2 pounds.

Beets are a storable vegetable. Topped beets may be stored for up to five or six months with the use of sprout inhibitors and under controlled storage conditions (a temperature of 0°C and 90-95 per cent relative humidity).⁽¹⁾ Late beets, cooled immediately and stored under such cold storage condition, can be kept fresh for long periods - from harvesting, in, say, early October, almost until the next crop, in late June or early July - if they are topped and well sorted to remove all diseased or damaged specimens. Only topped beets are stored and marketed from storage; bunched beets, with tops attached, are sold direct from the field following harvesting. Storage results in some deterioration in quality and some loss due to spoilage; therefore, the main advantage to storage appears to be the reduction of pressure on the fresh market during the peak production period. Year-round sufficiency in beets would, however, be very difficult to obtain, thus necessitating some imports of fresh bunching beets during the off-season.

Growers sell fresh market beets to packers and wholesalers, and sometimes, particularly in the bunched form, direct to retailers. Processing beets go usually directly to the processor; processing beets are mostly grown under contract, at prices negotiated in advance.

ACREAGE, PRODUCTION AND FARM VALUE

Between 1961-65 and 1971-74 total beet acreage in Canada declined from 2,710 acres to 2,300 acres, or about 15 per cent (see Table 1). During this period, production fell from an average of 50.0 million pounds to 39.4 million pounds, a decrease of about 21 per cent. Declines were recorded in all regions except the Maritimes, where beet acreage increased by 63 per cent and beet production rose by 73 per cent between 1961-65 and 1971-74. However, the Maritimes, like Manitoba and British Columbia, are only minor producers of beets, so that in 1971-74 almost 83 per cent of the Canadian acreage and 89

(1) Ministry of Agriculture and Food, 1974 Vegetable Production Recommendations, Province of Ontario, Publication 363, Toronto.

per cent of output was located in the central region. There is no recorded table beet production, as opposed to sugar-beet production, in either Saskatchewan or Alberta, although undoubtedly this vegetable is produced in small commercial volumes in these provinces.

There are no statistical breakdowns maintained for the production, acreage, or yield of processing beets as opposed to beets grown for the fresh market. The figures used in this report pertaining to the production of processing beets have been calculated on the basis of acquisitions by processors. These data indicate that, whereas during 1961-65 production for processing amounted to less than half of total output, 23.7 million as against 50.0 million pounds, during 1971-74, this proportion had increased to about three-quarters, 29.5 million out of 39.4 million pounds. It is clear that production for the fresh market has dropped sharply while that for processing has increased. Ontario evidently accounts for about two-thirds of Canada's processing beet production,⁽¹⁾ and Quebec is believed to account for most of the remainder.

Average national yields of beets per acre declined from 18,444 pounds in 1961-65 to 17,135 pounds in 1971-74. Lower yields in Quebec and British Columbia more than offset gains in the other producing regions.

The aggregate farm value of beets produced in Canada decreased during the 1960s from about \$1.1 million in 1961-65 to about \$0.9 million in 1966-70. This was because the returns to the farmer (farm value per pound), averaging 2.1 cents per pound in 1961-65 and 2.3 cents per pound in 1966-70, did not rise enough to compensate for the decline in total production between 1961-65 and 1966-70. During the 1970s, however, aggregate farm value moved up again; while production between 1966-70 and 1971-74 has remained relatively unchanged, farm prices have risen from 2.3 cents per pound to 3.1 cents per pound. As a result, total farm value increased to almost \$1.6 million in 1974.

The data for average farm value per pound given in Table 1 cover beets sold for both the fresh market and processing; separate figures are not available. The composite price per pound shown does not, therefore, reveal the considerable farm price differential which normally exists between processing beets and fresh market beets. From estimates prepared by the Board (see Table 3), it would seem that in 1974-75 the return to growers of fresh market beets averaged 10.4 cents per pound while for processing beets it was 2.5 cents. During 1973-74, grower prices for fresh market beets rose sharply, while those for processing beets remained about the same. However, in 1974 the farm price of beets increased for processing as well as for the fresh market; sharply higher prices were negotiated in Ontario for processing beets (see Appendix Table 11), the average farm return for such beets increasing from 1.74 cents per pound in 1973 to 2.71 cents per pound in 1974.⁽²⁾ Processing beets are sold at widely

(1) Statistics pertaining to Ontario's processing beet production are presented in Appendix Table 12.

(2) The average price negotiated in Ontario for beets for processing in the subsequent 1975-76 crop year is reported to be \$58.20 per ton, or 2.91 cents per pound.

Table 1: Beets: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes	158	174	150	190	290	400	258	+ 63.3
Quebec	1,140	1,044	1,140	820	880	1,110	988	- 13.3
Ontario	1,214	902	910	930	900	920	915	- 24.6
Manitoba	60	40	50	50	40	40	45	- 25.0
B.C.	138	84	80	110	120	70	95	- 31.2
Canada	2,710	2,244	2,330	2,100	2,230	2,540	2,300	- 15.1
- Production, '000 lb. -								
Maritimes	1,418	2,228	1,185	1,936	2,482	4,231	2,459	+ 73.4
Quebec	15,579	15,214	15,846	4,756	10,736	10,545	10,471	- 32.8
Ontario	29,720	20,904	25,763	24,664	23,329	25,088	24,711	- 16.9
Manitoba	573	356	410	820	630	360	555	- 3.1
B.C.	2,692	1,441	1,220	1,602	1,211	831	1,216	- 54.8
Canada	49,982	40,142	44,424	33,778	38,388	41,055	39,411	- 21.1
- Average Yield, lb. -								
Maritimes	8,975	12,805	7,900	10,189	8,559	10,578	9,531	+ 6.2
Quebec	13,666	14,573	13,900	5,800	12,200	9,500	10,598	- 22.4
Ontario	24,481	23,175	28,311	26,520	25,921	27,270	27,007	+ 10.3
Manitoba	9,550	8,900	8,200	16,400	15,750	9,000	12,333	+ 29.1
B.C.	19,507	17,155	15,250	14,564	10,092	11,871	12,800	- 34.4
Canada	18,444	17,889	19,066	16,085	17,214	16,163	17,135	- 7.1
- Farm Value, \$'000 -								
Maritimes	81	132	78	125	149	243	149	+ 84.0
Quebec	270	258	263	166	301	316	262	- 3.0
Ontario	605	438	562	601	681	914	690	+ 14.0
Manitoba	14	13	18	37	32	22	27	+ 92.9
B.C.	100	80	91	95	115	94	99	- 1.0
Canada	1,070	920	1,012	1,024	1,278	1,589	1,226	+ 14.6
- Farm Value, ¢ per lb. -								
Maritimes	5.7	5.9	6.6	6.5	6.0	5.7	6.1	+ 7.0
Quebec	1.7	1.7	1.7	3.5	2.8	3.0	2.5	+ 47.1
Ontario	2.0	2.1	2.2	2.4	2.9	3.6	2.8	+ 40.0
Manitoba	2.4	3.7	4.4	4.5	5.1	6.1	4.9	+104.2
B.C.	3.7	5.6	7.5	5.9	9.5	11.3	8.1	+118.9
Canada	2.1	2.3	2.3	3.0	3.3	3.9	3.1	+ 47.6

Source: Statistics Canada.

varying prices depending on size; processors prefer, and pay a premium for, smaller beets. In 1974, for example, prices negotiated by the Ontario Vegetable Growers Marketing Board ranged from \$22.00 per ton for larger beets, $2\frac{1}{2}$ to $4\frac{1}{2}$ inches in diameter, to \$111.00 per ton for smaller beets, 1 to $1\frac{1}{4}$ inches in diameter.

Average farm values of beets have been very much lower in the central region than in other regions. This is in large part due to the high proportion accounted for by relatively low value processing beets in that region, while production in other regions comprised mostly high value fresh market beets; separate figures for processing and fresh market beets are not available on a provincial or regional basis.

SUPPLY AND DISPOSITION

Increasingly beets produced in Canada are processed and the proportion sold on the fresh market diminishes. During the 1961-65 period, slightly over one-half of production was sold on the fresh market and about 48 per cent was processed. In contrast, during 1971-74, about one-quarter of this crop was sold on the fresh market and three-quarters was utilized by domestic processors.⁽¹⁾ As with many other vegetables the average Canadian housewife has become less and less inclined to purchase fresh beets and to prepare them herself; annual domestic fresh market consumption, at an average level of 27.7 million pounds during 1961-65, has declined to 10.9 million pounds in 1971-74. On a per capita basis fresh consumption is estimated at 0.50 pound per annum during the latter period as against 1.46 pounds during 1961-65.

Exports of fresh beets comprise only a very small share of production, about 1 per cent in the 1971-74 period. There has been no significant trend in export volumes, with 1971-74 annual exports, averaging 430 thousand pounds, being only slightly higher than 1961-65 annual exports, which averaged 385 thousand pounds.

Aggregate import totals show that fresh beet imports have increased since the early 1960s, from an annual average of 2.1 million pounds in 1961-65 to 3.7 million pounds in 1971-74. Although published data do not afford any breakdown of aggregate imports as to beet imports for processing versus imports for fresh sale, the Board estimates, as based on a questionnaire survey and on an inspection of import documents, that processing beet imports have risen substantially in recent years. Processing beet imports, for example, are estimated at 2.5 million pounds in 1973-74 and 6.2 million pounds in 1974-75. This compares to a 1961-65 average of only 200 thousand pounds and evidently negligible imports for processing in the 1966-70 period. With reference, however, to beets entered for domestic fresh market sales, imports appear to be declining, averaging 1.9 million pounds in 1961-65 as against 1.4 million pounds in 1971-74.

Although Canada exports beets, total fresh imports for both the fresh market and for processing have considerably exceeded exports in all years since 1961. The deficit on trade in this fresh vegetable amounted to some 1.7 pounds annually in 1961-65, and to 3.3 million pounds annually in 1971-74. The latter volume may be divided between net imports of 1.0 million pounds of beets for the fresh market and 2.3 million pounds of processing beets.

(1) Trend ratios respecting supply and disposition data are presented as Appendix Table 2.

Table 2: Beets: Supply and Disposition, Canada, Crop Years 1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74	% Change 1961-65 to 1971-74
			- '000 lb. -					
<u>Total Production</u>	49,982	40,142	44,424	33,778	38,388	41,055	39,411	- 21.1
<u>Total Imports</u> (a)	2,069	1,668	1,166	2,010	3,946	7,622	3,686	+ 78.2
<u>Fresh(b)</u>	1,869	1,668	786	2,010	1,446	1,422	1,416	- 24.2
Fresh for processing	200	..	380	..	2,500	6,200	2,270	+1035.0
<u>Total Supply Available</u>	52,051	41,810	45,590	35,788	42,334	48,677	43,097	- 17.2
Available for processing	23,926	25,600	26,380	26,000	34,500	40,200	31,770	+ 32.8
From domestic production	23,726	25,600	26,000	26,000	32,000	34,000	29,500	+ 24.3
Imported for processing	200	..	380	..	2,500	6,200	2,270	+1035.0
Available for fresh market	28,125	16,210	19,210	9,788	7,834	8,477	11,327	- 59.7
From domestic production	26,256	14,542	18,424	7,778	6,388	7,055	9,911	- 62.3
Imported	1,869	1,668	786	2,010	1,446	1,422	1,416	- 24.2
<u>Total Exports</u> (a)	385	166	254	223	1,073	169	430	+ 11.7
<u>Fresh</u>	385	166	254	223	1,073	169	430	+ 11.7
<u>Total Domestic Disappearance</u>	51,666	41,644	45,336	35,565	41,261	48,508	42,668	- 17.4
Consumed in processed form	23,926	25,600	26,380	26,000	34,500	40,200	31,770	+ 32.8
From domestic production	23,726	25,600	26,000	26,000	32,000	34,000	29,500	+ 24.3
Imported for processing	200	..	380	..	2,500	6,200	2,270	+1035.0
Fresh market consumption	27,740	16,044	18,956	9,565	6,761	8,308	10,898	- 60.7
From domestic production	25,871	14,376	18,170	7,555	5,315	6,886	9,482	- 63.3
Imported	1,869	1,668	786	2,010	1,446	1,422	1,416	- 24.2

(a) No trade data are available respecting imports or exports of beets in the processed form.

(b) Tariff Board estimate.

Source: Derived from Statistics Canada and Agriculture Canada data.

Canada is largely self-sufficient in fresh market beets; imports of fresh market beets comprised only 13 per cent of domestic fresh beet consumption in 1971-74 (see Appendix Table 4). Imports appear to be gaining slightly in importance, however; according to the Board's estimates, imports only accounted for about 7 per cent of fresh market consumption in the 1961-65 period. Fresh market imports are essentially a supplement to domestically grown beets in certain months (mainly April, May, and June) when domestic supplies are depleted or in short supply.

Canada also remains largely self-sufficient in the market for processing beets, although in 1973-74 and in 1974-75 imports of processing beets have become of increased importance. As based on the 1971-74 average it is pointed out that 93 per cent of beets used in domestic processing were obtained from domestic growers; in this period total domestic acquisitions for processing purposes amounted to 31.8 million pounds, 29.5 million pounds being supplied by domestic growers and 2.3 million pounds being imported. However, the sharp rise in processing beet imports in 1973-74 and 1974-75 reveals that domestic growers are more recently meeting increased competition from imports. In the 1974-75 crop year, for example, imports of processing beets, estimated at 6.2 million pounds, accounted for about 15 per cent of total domestic requirements.

During 1961-65, net beet imports into Canada comprised an estimated 3.3 per cent of estimated total consumption (domestic disappearance) versus 7.6 per cent in 1971-74. This measure of self-sufficiency, while declining due to higher processing beet imports, indicates that Canada is essentially self-sufficient in meeting both fresh market and processing demand.

As shown in Table 2, in terms of fresh product equivalents, the total domestic disappearance of beets, both in fresh and processed form, is calculated at 42.7 million pounds in 1971-74, having declined from an annual average of 51.7 million pounds in 1961-65. This decline results from a pronounced drop in fresh consumption although consumption in the processed form has increased. Per capita consumption figures, as noted earlier, reveal a sharp drop in the popularity of beets as a fresh table vegetable. However, a comparison of 1961-65 and 1971-74 averages indicates a modest increase in per capita consumption of beets in the processed form (from 1.26 pounds to 1.45 pounds per capita); this comparison also shows that total beet consumption has declined from 2.73 pounds to 1.94 pounds per capita.

Most of fresh market sales, according to 1971-74 data approximately 72 per cent, occur in the production months of July to November (see Appendix Table 3). The remaining 28 per cent of the crop is stored for sale during the subsequent seven months of the year. Monthly fresh market shipments out of storage decline steadily throughout the December to June period, with, during 1971-74, only some 4 per cent of such shipments occurring in the months of May and June.

Traditionally, Canadian beet producers have experienced little import competition during the domestic growing season; only 8 per cent of fresh market imports in 1971-74, comprising 1 per cent of fresh market consumption, entered the country during the five-month

domestic period (see Appendix Table 4). The months, December to June inclusive, accounted for the other 92 per cent of imports, representing 32.7 per cent of total fresh market consumption during these months.

As observed earlier, imports of processing beets have more recently captured a growing proportion of Canada's processing beet demand, particularly in 1973-74 and 1974-75. As best as can be determined, imports of processing beets occur mainly between October and December. There appears to be, in the market for processing beets, direct competition between domestic and imported beets during Canada's production season. To the Board's knowledge, domestic beet processors obtain their requirements, both domestic and imported, direct from the field and do not utilize stored beets to any important extent.

Unload data indicate very little interregional trade movement in beets. Only very small volumes of fresh market production in Ontario and Quebec are marketed in either the Maritimes or Prairie regions. Similarly, while British Columbia is sometimes a supplier of vegetables to neighbouring provinces, again the volume involved is not significant.

IMPORTS

Imports of beets both for fresh market consumption and for processing originate almost entirely in the United States (see Appendix Table 6). Beets imported for fresh market consumption have originated mainly in Texas and California (see Appendix Table 8); these states have large spring crops and supply beets to the Canadian fresh market principally in April, May, and June. With respect to (1) imports of processing beets, these are entered from New York State, principally between October and December. New York and Wisconsin are the main United States producers of processing beets (see Appendix Table 12).

In the 1971-74 period, 89 per cent of all beet imports, both fresh market and processing beets, entered Quebec and Ontario (see Appendix Table 7). The bulk of beets imported into these two provinces was for processing. The Board estimates that there has been little or no imports of processing beets in other regions; therefore, the imports recorded into other provinces are evidently entered for the fresh market only.

EXPORTS

As already indicated, Canada exports a small volume of beets; such exports averaged, during 1971-74, only some 1 per cent of domestic production. For the 1971-74 period most exports were to U.S. markets (see Appendix Table 9) where beets of Canadian origin enter free of duty.

(1) According to a survey conducted by the Board for the 1974 year, processing beets are entered only into Ontario and Quebec, such imports originating entirely from growing areas in upper New York State.

PRICES

Beets are sold at widely different price ranges, both at the farm level and at the wholesale level, depending on region of sale, on whether they are sold for processing or for fresh market consumption, and on their more specific retail form. For the crop years, 1971-72 to 1974-75, processing beets have sold at an average farm price, for example, ranging between 1.7 to 2.5 cents per pound. Fresh market topped beets, usually sold in cellophane packages, command a higher farm price, and bunched beets may be sold at farm prices substantially exceeding 10 cents per pound. Table 3 below indicates the price differential between processing beets and fresh market beets at the farm level:

Table 3: Estimated Prices, Beets Sold for Processing and Beets Sold on the Fresh Market, Crop Years, 1966-70 to 1974-75

	<u>Average</u> <u>1966-70</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>	<u>Average</u> <u>1971-74</u>
	- ¢ per lb. -					
Sold for processing	1.7	1.7	1.8	2.0	2.5	2.0
Sold to fresh market (a)	3.4	3.1	7.3	10.1	10.4	6.3
Total Production	2.3	2.3	3.0	3.3	3.9	3.1

(a) Includes fresh market exports to the United States.

Source: Derived from Statistics Canada data.

As derived by the Board, the average farm price for processing beets over the 1971-74 period was 2 cents per pound, or about one-third of the price received for fresh market beets, averaging 6.3 cents per pound. In 1966-70, the price for processing beets averaged 1.7 cents per pound or one-half of the price for fresh market beets, 3.4 cents per pound. The differential in price between these two types of beets has thus been widening in recent years. The growing and harvesting of processing beets is almost completely mechanized, resulting in lower costs and explaining the much lower price received. Considerably more hand labour is entailed in the harvesting and marketing of either topped or bunched fresh market beets.

The above estimates respecting the average price per pound for processing beets conform to additional price data for processing beets sold in Ontario as obtained from the Ontario Vegetable Growers Marketing Board (see Appendix Table 11). Ontario accounts for about two-thirds of all processing beets sold in Canada.

Based on the detailed price information in Appendix Tables 10a to 10c, Table 4 summarizes the monthly wholesale price data pertaining to sales in the principal domestic markets in 1974. With reference to topped beets, there is evidently little or no competition from imports during the domestic growing season. In most markets imported topped beets are available in March, April, May, and June, although the offering period was somewhat longer in Halifax and shorter in Montreal. Domestic prices of topped beets are much lower in Montreal and Toronto than in the other three main markets, because returns to growers and costs of production are also lower in the growing areas supplying these two markets. Considering that the bulk of domestic beet production occurs in Quebec and Ontario, and in view of the much lower wholesale prices in Montreal and Toronto, it would seem that local supply conditions basically determine domestic prices and not imports.

Imported topped beets tend to command a higher price than domestic beets in all markets, being offered in a period of generally short supply which permits premium prices. Such imported beets, moreover, are normally field marketed from spring crops in Texas and California and compete to advantage over domestic topped beets which, at that time, are mostly out of storage. Bunched beets are quite different in market appeal and price compared to topped beets and sell at a per pound price usually some three times that of topped beets. As with the topped beets, there is little or no import competition to domestically grown bunched beets in the period when domestic supplies are available, usually June to November; imports of the bunched product similarly occur in the late winter and spring months from supplying areas in Texas and California.

The Board was only able to obtain fragmentary information concerning the landed cost of importing beets and the importance of transport and duty costs in relation to landed cost. From the information available, however, it is clear, as is the case with most imported fresh vegetables, that freight and brokerage charges substantially exceed the cost of the duty. Freight and brokerage costs are normally about 5 cents per pound on beets entered from California or Texas, but have ranged up to 10 cents per pound on certain shipments (e.g., from California to Winnipeg). Hence, in those regions, and in those periods (see Appendix Table 13) where the 1-cent specific duty is applied, the specific duty is only one-fifth or perhaps one-tenth of transport costs. The impact of duty costs, however, can be higher in certain circumstances. Bunched beets are a more expensive product, for example, with a f.o.b. cost on entry frequently ranging between 25-30 cents per pound; an ad valorem rate of 10 per cent has sometimes been applied on their importation with customs duty amounting therefore to 2½ to 3 cents per pound. In such a case duty costs could amount to 50-60 per cent of freight and brokerage costs. For most imported beets, however, duty costs are insignificant relative to freight and brokerage charges; these costs consequently provide the domestic growers supplying local markets with much more protection than import duties. This additional protection is, of course, lost as domestic growers ship their produce over longer distances.

Table 4: Average Wholesale to Retail Selling Prices for Domestic and Imported Beets in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974

	<u>Halifax</u>		<u>Montreal</u>		<u>Toronto</u>		<u>Winnipeg</u>		<u>Vancouver</u>	
	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>
	- ¢ per lb. -									
<u>Topped</u> <u>Beets</u> (a)										
Jan.	-	-	5.3	-	6.4	-	7.8	-	13.3	-
Feb.	-	-	5.5	-	6.8	-	8.6	13.3	13.4	-
Mar.	-	14.8	6.0	-	6.5	-	7.5	12.1	13.5	14.7
April	-	14.8	5.3	12.1	6.7	(b)	-	11.6	-	16.0
May	-	14.8	-	12.6	10.5	(b)	-	12.3	-	16.1
June	-	15.4	-	14.8	11.0	(b)	-	13.1	-	16.5
July	-	16.0	-	-	10.4	-	14.1	-	15.0	-
Aug.	-	16.0	7.7	-	9.4	-	13.5	-	14.4	-
Sept.	13.0	-	5.1	-	7.7	-	13.6	-	-	-
Oct.	13.0	-	5.4	-	7.5	-	13.7	-	15.3	-
Nov.	13.0	-	6.3	-	7.7	-	13.7	-	14.7	-
Dec.	13.0	-	6.8	-	7.3	-	13.0	16.0	13.8	-
<u>Bunched</u> <u>Beets</u> (c)										
Jan.	-	-	-	-	-	-	-	-	-	-
Feb.	-	-	-	-	-	37.5	-	-	-	-
Mar.	-	21.7	-	-	-	34.6	-	-	42.0	-
Apr.	-	37.9	-	31.3	-	36.1	-	-	-	-
May	-	43.3	-	31.3	-	36.8	-	-	-	-
June	-	-	25.0	-	37.6	41.0	-	-	38.9	-
July	33.3	-	19.1	-	28.9	-	36.7	-	39.4	-
Aug.	33.3	-	11.5	-	21.2	-	35.1	-	39.4	-
Sept.	33.3	-	11.2	-	21.6	-	37.3	42.6	39.4	-
Oct.	33.3	-	11.7	-	24.4	-	-	42.4	38.1	-
Nov.	-	-	-	34.1	30.6	-	-	42.8	37.0	-
Dec.	-	-	-	35.3	-	-	-	41.7	-	-

(a) Prices are based on quotations per 50-lb. container except as noted.

(b) Based on 2-lb. cello pack.

(c) Prices are based on quotations per 9- or 18-lb. bunches.

Source: Appendix Tables 10a-10c.

PRODUCTION COSTS

The costs of producing red processing beets in Kent County, the principal beet growing area in Ontario, in 1972 and 1974 are presented in Table 5. Cost data for beets grown for the fresh market are not available.

As indicated in Table 5 production costs for processing beets in 1974, among the growers surveyed, amounted to \$458 per acre, or 1.6 cents per pound, with pre-harvest costs comprising about one-half of total costs. In 1972 production costs amounted to \$371 per acre, or 1.3 cents per pound. It appears that the cost increase between 1972 and 1974 was primarily due to higher material costs and land charges.

Table 5: Beets for Processing: Production Costs in Kent County, Ontario

	<u>1972</u>	<u>1974</u>
Yield, lb./acre ^(a)	29,200	28,800
	- \$ per acre -	
<u>Pre-Harvest or Cultivation Costs</u>		
Labour	65.78	60.10
Machines	33.62	37.24
Materials	<u>75.97</u>	<u>126.25</u>
Total	175.37	223.59
<u>Harvesting and Marketing Costs</u>		
Labour	11.86	18.16
Machines	<u>100.97</u>	<u>87.35</u>
Total	112.83	105.51
<u>Overhead Costs</u>		
Land charges	78.38	116.39
Other	<u>4.72</u>	<u>12.00</u>
Total	83.10	128.39
Total Costs	371.30	457.49
Total Costs (¢/lb.)	1.27	1.59

(a) Clean beets.

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P.Ag.

The average price for processing beets in Ontario was 2.71 cents per pound. Therefore, the farmer in the above sample realized a net return of 1.12 cents per pound, or \$22.40 per ton in 1974. With a yield of 13.6 tons per acre, which according to Table 1 was about the average for all Ontario growers, the net return per acre came to a respectable \$322.56. This compares with a much lower net return of \$9.60 per ton in 1972 when not only production costs, 1.27 cents per pound, but the average return, 1.75 cents, were lower as well.

CANADA-UNITED STATES COMPARISONS

Information pertaining to beet production in the United States is limited, and data are only maintained for beets grown for processing (see Appendix Table 12). For the 1971-74 period, U.S. processing beet production averaged 3.98 billion pounds with a total farm value of \$5.8 million. New York and Wisconsin are the most important producers of this processing crop, together accounting for 69 per cent of U.S. output in 1971-74. There is, evidently, a significant spring crop of beets grown in Texas and California for the fresh market.

Recent developments in the Canadian market for processing beets indicate that domestic growers are not as competitive with U.S. growers in that market as in the fresh market. Whereas in 1966-70 imports for processing were negligible, such imports rose to 2.5 million pounds in 1973-74 and further increased to 6.2 million pounds in 1974-75.⁽¹⁾ According to the Board's survey of 1974 import documents, import competition is entirely from producers in upstate New York who enjoy easy access to Canadian processors situated in the Montreal or Toronto areas. In New York, the growing of processing beets is evidently viable at farm price levels considerably lower than those in Ontario. New York farm prices for beets for processing averaged 1.3 cents per pound in 1971-74 compared to 2.0 cents per pound in Ontario (see Appendix Tables 11 and 12). According to the Board's imports survey, moreover, processing beets from New York were entered at an average f.o.b. price of 1.5 cents per pound in 1974. This figure would approximate the price per pound received by New York growers and, is lower than estimated 1974 production costs in Ontario (1.6 cents per pound) and much lower than the average farm price negotiated by Ontario growers in 1974 (2.7 cents per pound). In the case of processing beets, therefore, domestic growers, mainly located in Ontario and Quebec, appear currently to face significant import competition from nearby U.S. growers. It is also pointed out that in the 1974 crop year Ontario growers negotiated sharply higher farm prices for beets for processing. This price increase was probably of considerable importance in attracting imports into the Canadian home market, especially in view of greatly increased production of processing beets in 1974 in New York and in the United States overall.

As presented earlier, there is little or no import competition from U.S. growers in Canada's fresh market during the Canadian growing season and most of the marketing period. Fresh market imports basically enter in April, May, and June when the domestic supply of lopped beets is beginning to run out and fresh bunched beets are unavailable. Production cost data for fresh market beets are not available for either Canada or the United States, and therefore, the Board lacks evidence concerning cost differences. It would, however, not be unreasonable to assume that in the more northern states, having the same production season as Canadian growers, that production costs may be somewhat lower.

(1) As based on import data for the 1975 calendar year, processing beet imports are expected to decline substantially in the 1975-76 crop year, to an estimated 3.0 million pounds.

TARIFF CONSIDERATIONS

Fresh beets, topped or not, are at present classified under tariff item 8704-1, which is described as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Beets per pound	Free	1 ct. or 10 p.c.	1 ct. or 10 p.c.

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 26 weeks which may be divided into two separate periods, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

When subject to specific rates of duty and imported in packages five pounds or less, each, see additional duty following item 8731-1.

In the above form, the item has existed since 1950 and is bound under GATT. On a temporary basis, the 10 p.c. alternative rate was suspended, and free entry substituted from February 20, 1973 to June 30, 1974 and again from November 20, 1974 to June 30, 1977. At the latter date, unless the suspension is further extended, the item will revert to its permanent statutory form.

Beets are subject to additional duties under tariff item 8704-1 if entered in small retail packs (normally cellos) weighing 5 pounds or less; the additional packaging duties are 5 p.c. M.F.N. and 10 p.c. Gen. with free entry again applicable under the B.P. rate. As with most fresh vegetables, imports are almost entirely of U.S. origin, and the only duty of importance is the M.F.N. specific duty of 1 cent per pound and the related packaging duty of 5 p.c.

The presently existing duty of 1 cent per pound on beets has been in effect since 1948 at which time the 26-week seasonal period for application was introduced. The tariff structure applicable in various periods is given below:

Table 6: Beets: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. (a)(b)
1936-38	Free	15 p.c.	30 p.c. (a)
1939-47	Free	10 p.c.	30 p.c. (a)
1948-1950 (May 31)	Free	1 ct. (26 weeks) ^(c) 10 p.c.	30 p.c. (a)
1950 (June 1)- 1973 (Feb. 19)	Free	1 ct. (26 weeks) ^(d) 10 p.c.	1 ct. (26 weeks) 10 p.c.
1973 (Feb. 20)	Free	1 ct. (26 weeks) ^(d) Free	1 ct. (26 weeks) ^(d) Free
1974 (July 1)	Free	1 ct. (26 weeks) ^(d) 10 p.c.	1 ct. (26 weeks) ^(d) 10 p.c.
1974 (Nov. 19)	Free	1 ct. (26 weeks) ^(d) Free	1 ct. (26 weeks) ^(d) Free

(a) Not less than 1 ct., June 15-Feb. 28.

(b) Imports from the United States were subject to the General Tariff until December 31, 1935.

(c) Not applied until 1950.

(d) Effective April 10, 1959, packages weighing 5 pounds or less have been subject to an additional duty of 5 p.c. M.F.N. and 10 p.c. Gen.

Source: Canadian Customs Tariff.

Free entry has applied to B.P. imports since 1935. With respect to the Most-Favoured-Nation Tariff, ad valorem rates applied to beets from 1935 until 1948 at which time the 1-cent specific duty was established together with the provision for its application over a 26-week period. From 1948 to 1973, a 10 p.c. rate was applicable to imports whenever the 1-cent specific duty was not in force. This off-season ad valorem rate was suspended from February 20, 1973 until June 30, 1974; the suspension was reinstated on November 19, 1974 to remain in effect until June 30, 1977.

The application of the seasonal specific duty on beets is authorized for up to 26 weeks (182 days) in continuous or split periods in each of the three tariff regions. The application of the seasonal specific duty has not always been particularly critical in affording protection to domestic growers; in certain years the specific duty has been waived in some regions inasmuch as growers evidently obtained a higher level of protection from the ad valorem rate of 10 per cent than from the specific duty of 1 cent per pound.

Appendix Table 13 sets forth the actual period in each year since 1966 during which the seasonal specific duty has been in effect. In the Maritime region the 1-cent duty has been in effect in every year since 1966 usually for the full 26 weeks permitted. In the central region, however, Canadian beet growers, as represented by The Canadian Horticultural Council, did not request the specific duty in the crop years 1970-71, 1972-73, and 1974-75. The Board was informed by the Council that the specific duty was not requested for the central region in 1972-73 due to a poor harvest and a generally short domestic beet supply; in this region the specific duty was not requested in 1974-75 as growers deemed the straight 10 p.c. rate to be more advantageous.⁽¹⁾ The Board was also informed that in the western region the specific duty has generally not been applied as there has been a satisfactory market for domestic production and because of the protection afforded by the 10 p.c. rate. However, in 1973-74, a specific duty was applied in both the central and western regions as free entry would otherwise have applied to imports during the domestic harvest season.

The ad valorem equivalent of the 1-cent specific duty varies widely because of the very different per pound prices at which beets are imported. According to the Board's review of import documents, processing beets were entered in 1974 at f.o.b. prices ranging between 1.3 to 1.7 cents per pound and averaging 1.5 cents per pound. In contrast, most fresh market beets appear to have been imported at between 10 and 14 cents per pound. The application of the 1-cent specific duty on processing beet imports would therefore amount to an average ad valorem equivalent rate of 66.7 per cent in 1974. With respect to fresh market imports, as best as can be estimated, the 1974 ad valorem equivalent of the specific duty would have been 7 to 10 per cent. In the case of the more expensive bunched beets imported at f.o.b. prices of 25 to 30 cents per pound, the specific duty would have been equivalent to only some 3 to 4 p.c.

There is evidence that the level of tariff protection provided by the seasonal specific duty of 1 cent per pound has been eroded by higher unit import prices. As shown in Appendix Table 14, the average f.o.b. price of dutiable imports for the fresh market increased from 4.7 cents per pound in 1966 to 10.8 cents in 1974, and the ad valorem equivalent of the specific duty declined from 21.3 per cent to 9.3 per cent. It may be noted from Appendix Table 14 that the percentage of dutiable imports to total imports declined significantly in 1973 and 1974 following the suspension of the off-season 10 p.c. rate and the non-application of the specific duty in some regions in 1974-75.

Under the United States tariff fresh beets imported from Canada are entered free of duty under item 135.20, Part 8 - Vegetables Subpart A. - Vegetables, Fresh, Chilled, or Frozen:

(1) The 10 p.c. rate was applicable from July 1, 1974 to November 18, 1974 at which time the provision for the ad valorem rate was again suspended. This July to mid November period would cover, however, the main production months for beets during the 1974-75 crop year.

	<u>Col. 1</u>	<u>Col. 2</u>
Item 135.20 Beets (not including sugar beets)	Free	17% ad. val.

The Canadian Horticultural Council proposed: (a) that the specific duty on beets be raised from 1 cent to $1\frac{1}{2}$ cents; (b) that this proposed $1\frac{1}{2}$ -cents specific duty be subject to an ad valorem minimum of not less than 15 per cent; (c) that the 10 p.c. off-season duty be removed. The Council reasoned that the existing seasonal duty of 1 cent per pound could be increased to $1\frac{1}{2}$ cents "to compensate in some measure for the elimination of the 10 per cent off-season rate."⁽¹⁾ No proposal was made by the Council for any change in the existing provision for a seasonal period of 26 weeks.

The Council's proposal would benefit consumers of fresh market beets in that the permanent removal of the 10 p.c. off-season rate would reduce the cost of actual import duties paid on such beets and would reduce the price of domestically grown beets in the January-June period. This consumer saving would, however, be out-weighed by higher prices for the whole domestic crop during the 26-week on-season period if it is assumed that growers would increase prices to the extent of the $\frac{1}{2}$ -cent duty increase. On the basis of 1974-75 production and import volumes the Board estimates that the proposal of the Horticultural Council would increase consumer costs with respect to beets by \$206 thousand in total, or by less than 5 cents per annum per family of four. The additional benefit to the grower would be about \$75 per acre based on an average yield of 16,163 pounds per acre. The cost to the consumer of the proposed increase in the specific duty on fresh market, as opposed to processing beets, is estimated at less than \$4 thousand, because the benefit of the removal of the 10 p.c. off-season rate nearly outweighs the cost of $\frac{1}{2}$ -cent increase in the specific duty.

The Canadian Food Processors Association recommended an additional and separate tariff item for beets when imported for processing (beets for manufacture) with a straight 10 per cent ad valorem seasonal duty and free entry in the off-season. This separate tariff item would be of considerable benefit to processors in permitting lower import duties. Where the present specific duty applies to imports for processing such duty is 1 cent per pound over a current f.o.b. price average of only 1.5 cents per pound; an on-season 10 p.c. rate would, however, be equivalent to only 0.15 cent per pound.

CONCLUSIONS

Canadian production and consumption of fresh market beets has been declining rapidly. Imports for the fresh market have dropped off also, but not as rapidly. The import share has, consequently, risen

(1) The Canadian Horticultural Council, submission to the Tariff Board - Reference No. 152 - Fresh and Processed Fruits and Vegetables, November 20, 1973, Ottawa.

from an annual level of 6.7 per cent during 1961-65 to 13.0 per cent in 1971-74. Import penetration is however, greatest, and has increased most, during the months when Canadian storage supplies are running out. The level of import penetration during the main production/marketing season, July to February is low, less than 6 per cent. While the ad valorem equivalent of the seasonal specific duty has diminished, this erosion has not affected the position of the growers of fresh market beets adversely. Therefore, the Board does not find an increase in the present seasonal specific duty of 1 cent per pound warranted. On the other hand, it would consider further erosion of its value undesirable, and concludes that the specific duty should be subject to an ad valorem minimum of 10 per cent.

The Board can find little merit in retaining the 10 p.c. off-season rate, in addition to the specific duty of 1 cent per pound. The application of any duty during the late spring and early summer months on fresh market beets, when imports are at a seasonal peak, is viewed as constituting a cost to the Canadian consumer with no significant advantage to domestic producers. In view of its recommendation to discontinue permanently the existing 10 p.c. off-season rate, the Board recommends a compensating extension of the present seasonal period to a maximum of 34 weeks, in order to encompass a greater part of the actual marketing period. The Board is of the opinion that, in view of the limited availability of domestic beets between March and June, duty-free entry should be permitted for this part of the year.

As noted, beets, when imported in pre-packaged small packages for the retail trade, are subject to additional packaging duties. A more general discussion of such additional packaging duties is provided elsewhere in this Reference. The Board is recommending no change with respect to the provision for the additional duty when beets enter pre-packaged, presently provided for under tariff item 8704-1.

With respect to the growing and marketing of beets for processing in Canada, the data show increasing import competition. Processing beet imports rose from an annual average of 200 thousand pounds in 1961-65 to 2.3 million pounds in 1971-74, and to 6.2 million pounds in the 1974-75 crop year. Available data indicate that growers in New York State can supply Canadian processors at prices significantly less than those prevailing in Ontario. This advantage was due to lower costs of production and depressed prices, because of overproduction, in the United States, and sharply higher contract prices in Canada.

Apparently, Canadian growers opted for higher prices and a greatly increased net return per acre, net returns which made growing beets for processing for the average grower very profitable, at the risk of losing part of their market.

The Board therefore concluded that an additional and separate tariff item should be introduced for beets when imported for processing. In view of the recent trend in negotiated prices for beets for processing in Ontario, the Board finds itself unable to recommend a rate lower than 1 cent per pound for this item. Furthermore, it is recommended that the ad valorem minimum rate be 20 per

cent. These rates would apply to both the Most-Favoured-Nation and General Tariff; the B.P. rate would remain Free.

The traditional season for the processing of beets is during the harvesting period, using principally, domestically grown beets. To discourage any change in this practice and the substitution of the processing of imported beets during the off-season, no period of free entry for beets for processing is recommended.

RECOMMENDATIONS

The Board recommends that the existing schedule in effect respecting beets under tariff item 8704-1 be deleted and that the following schedule be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Beets, n.o.p. ....per pound	Free	1 ct. but not less than 10 p.c., or Free	1 ct. but not less than 10 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 34 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following tariff item 8748-1.

Beets for processing			
..... per pound	Free	1 ct. but not less than 20 p.c.	1 ct. but not less than 20 p.c.

**Beets: Acreage and Number of Farms, by Province
and Region, 1961 and 1971**

	1961		1971		
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	200	7.9	203	7.9	391
Nfld.	48	1.9	52	2.0	130
P.E.I.	17	0.7	74	2.9	30
N.S.	79	3.1	47	1.8	134
N.B.	56	2.2	30	1.2	97
Central Region	2,094	82.3	2,089	81.8	1,418
Que.	1,078	42.4	1,136	44.5	726
Ont.	1,016	39.9	953	37.3	692
Western Region	250	9.8	263	10.3	381
Man.	68	2.7	65	2.5	91
Sask.	12	0.4	17	0.7	47
Alta.	68	2.7	69	2.7	69
B.C.	102	4.0	112	4.4	174
Canada ^(a)	2,545	100.0	2,555	100.0	2,191

^(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Beets: Supply and Disposition, Canada, Crop Years, 1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
			-	per cent	-		
<u>Per Cent of Domestic Production:</u>							
Sold for Processing	47.5	63.8	58.5	77.0	83.4	82.8	74.9
Sold to Domestic Fresh Market	51.8	35.8	40.9	22.4	13.8	16.8	24.1
Exported Fresh	0.8	0.4	0.6	0.7	2.8	0.4	1.1
<u>Total Imports as Per Cent:</u>							
of Total Supply Available	4.0	4.0	2.6	6.0	10.3	18.6	9.4
of Total Domestic Disappearance	4.0	4.0	2.6	5.7	9.6	15.7	8.6
<u>Fresh Imports as Per Cent:</u>							
of Fresh Market Availability	6.6	10.3	4.1	20.5	18.4	16.8	12.5
of Fresh Exports	485.4	1,004.8	309.4	901.3	134.8	841.4	329.3
of Fresh Market Consumption	6.7	10.4	4.1	21.0	21.4	17.1	13.0
<u>Fresh Imports for Processing as Per Cent:</u>							
of Availability for Processing	0.8	..	1.4	..	7.2	15.4	7.1
of Domestic Disappearance	0.4	..	0.8	..	6.1	12.8	5.3
<u>Per Cent of Fresh Market Consumption:</u>							
From Domestic Production	93.3	89.6	95.9	79.0	78.6	82.9	87.0
From Imports	6.7	10.4	4.1	21.0	21.4	17.1	13.0
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	46.3	61.5	58.2	73.1	83.6	82.9	74.5
Consumed in Fresh Form	53.7	38.5	41.8	26.9	16.4	17.1	25.5
<u>Net Imports (a) as % of Total Domestic Disappearance</u>							
Production as % of Total Domestic Disappearance	3.3	3.6	2.0	5.0	7.0	15.4	7.6
	96.7	96.4	98.0	95.0	93.0	84.6	92.4

(a) Total imports minus total exports.
Source: Table 2.

Beets: Estimated Monthly Distribution of Fresh Shipments^(a)
to Principal Markets, Crop Years, 1966-70 to 1974-75

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
	- thousand pounds -					
July	1,826	1,114	2,744	748	441	523
Aug.	2,659	1,351	2,071	997	883	1,453
Sept.	2,703	1,771	3,598	1,239	1,191	1,054
Oct.	2,243	1,709	2,798	1,609	1,169	1,260
Nov.	1,437	855	1,399	922	361	737
Dec.	805	607	1,090	506	351	482
Jan.	676	602	1,127	491	287	503
Feb.	503	434	709	325	324	379
Mar.	503	419	1,036	317	144	179
Apr.	345	222	563	76	90	158
May	216	187	581	83	37	48
June	460	211	454	242	37	110
Year	14,376	9,482	18,170	7,555	5,315	6,886

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Beets: Estimated Monthly Distribution of Fresh Market Consumption,
Crop Years, 1966-70 to 1971-74

Month	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports (a)	Total Consump- tion	Imports as % of Con- sumption
		-	thousand pounds	-	per cent
July	0.7	1,114	54	1,168	4.6
Aug.	-	1,351	5	1,356	0.4
Sept.	-	1,771	7	1,778	0.4
Oct.	-	1,709	17	1,726	1.0
Nov.	3.2	855	30	885	3.4
Dec.	17.0	607	81	688	11.8
Jan.	19.6	602	126	728	17.3
Feb.	34.3	434	184	618	29.8
Mar.	39.5	419	207	626	33.1
Apr.	50.6	222	280	502	55.8
May	48.1	187	264	451	58.5
June	22.4	211	161	372	43.3
Total	10.4	9,482	1,416	10,898	13.0

(a) Excludes estimated imports for processing.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 5

Beets: Total Imports^(a) by Month, Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	%	Average 1971-74	%	1971-72	1972-73	1973-74	1974-75
	- thousand pounds -							
July	47	2.8	144	3.9	24	25	442	85
Aug.	*	*	7	0.2	6	2	3	19
Sept.	1	0.1	4	0.1	2	-	2	11
Oct.	1	*	279	7.6	2	47	1,039	27
Nov.	8	0.5	1,838	49.9	397	23	1,513	5,418
Dec.	102	6.1	313	8.5	32	42	50	1,126
Jan.	141	8.5	59	1.6	49	47	48	94
Feb.	213	12.8	161	4.3	107	346	59	134
Mar.	286	17.1	181	4.9	85	338	147	154
Apr.	331	19.8	236	6.4	164	476	137	169
May	335	20.1	295	8.0	187	489	250	253
June	204	12.2	169	4.6	111	175	257	133
Total	1,668	100.0	3,686	100.0	1,166	2,010	3,946	7,622

(a) Includes imports for fresh market consumption and for processing.

Source: Customs documents, tabulated by Statistics Canada.

Appendix Table 6

Beets: Imports^(a) by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>France</u>	<u>Netherlands</u>	<u>Total</u>
		-	thousand pounds	-	
1966	1,672	-	-	-	1,672
1967	1,950	-	-	-	1,950
1968	1,814	-	-	-	1,814
1969	1,595	6	-	-	1,601
1970	1,664	-	-	-	1,664
Average 1966-70	1,739	1	-	-	1,740
1971	1,640	-	-	-	1,640
1972	841	-	-	-	841
1973	4,189	-	466	265	4,920
1974	7,584	-	-	-	7,584
1975	3,211	5	-	-	3,216
Average 1971-75	3,493	1	93	53	3,640

(a) Includes imports for fresh market consumption and for processing.

Source: Customs documents, tabulated by Statistics Canada.

Appendix Table 7

Beets: Imports^(a) by Province and Region, 1971-1975

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		-	thousand pounds	-	
Atlantic Region	36	19	22	50	25
Nfld.	1	3	-	2	6
P.E.I.	-	-	*	-	-
N.S.	12	7	16	12	11
N.B.	23	9	5	36	8
Central Region	1,112	577	4,506	7,099	2,595
Que.	176	157	3,106	4,937	158
Ont.	936	419	1,401	2,163	2,437
Western Region	491	246	392	434	597
Man.	143	37	132	181	169
Sask.	21	9	10	12	26
Alta.	37	19	53	57	89
B.C.	290	181	197	185	312
Canada	1,640	841	4,920	7,584	3,216

(a) Includes imports for fresh market consumption and for processing.

Source: Statistics Canada.

Appendix Table 8

Beets: Percentage Distribution of Imports from United States,
by State of Origin, by Region, 1972-1974(a)

	<u>California</u>	<u>Texas</u>	<u>Florida</u>	<u>New Jersey</u>	<u>Others</u>	<u>Total</u>
		-	per cent(b)	-		
<u>1972</u>						
Atlantic Region	6.1	21.2	60.6	12.1	-	100.0
Central Region	1.0	73.2	0.3	24.7	0.8	100.0
Western Region	70.3	19.2	-	-	10.5	100.0
Canada	22.3	54.8	2.4	16.7	3.8	100.0
<u>1973</u>						
Atlantic Region	2.6	10.6	68.4	15.8	2.6	100.0
Central Region	-	86.7	-	9.7	3.6	100.0
Western Region	65.8	34.2	-	-	-	100.0
Canada	26.2	63.4	2.2	6.1	2.1	100.0
<u>1974</u>						
Atlantic Region	-	35.5	48.4	16.1	-	100.0
Central Region	0.2	66.7	5.4	20.9	6.8	100.0
Western Region	53.0	47.0	-	-	-	100.0
Canada	22.0	57.7	4.4	12.1	3.8	100.0

(a) Excludes imports for processing.

(b) Based on unload volumes.

Source: Agriculture Canada.

Appendix Table 9

Beets: Exports by Country of Destination, Crop Years,
1966-67 to 1974-75

<u>Year</u>	<u>United States</u>	<u>Others</u>	<u>Total</u>
		- thousand pounds -	
1966-67	3	108	111
1967-68	202	69	271
1968-69	6	98	104
1969-70	32	66	98
1970-71	96	148	244
Average 1966-70	68	98	166
1971-72	28	226	254
1972-73	111	112	223
1973-74	940	133	1,073
1974-75	51	118	169
Average 1971-74	283	147	430

Source: Agriculture Canada.

Appendix Table 10a

Beets: Weekly Wholesale to Retail Prices at Halifax, 1974

Week Ending	Florida		Texas		Nova Scotia	
	1 doz. bchd. 9 lb.		Topped 50-lb. bag		1 doz. bchd. 9 lb.	Topped 50-lb. bag
- cents per pound -						
Jan. 4						
11						
18						
25						
Feb. 1						
8						
15						
22						
Mar. 1						
8						
15						
22	21.7	(a)	14.8			
29	21.7	(a)	14.8			
Apr. 5	21.7	(a)	14.8			
12	43.3	(b)	14.8			
19	43.3	(b)	14.8			
26	43.3	(b)	14.8			
May 3	43.3	(b)	14.8			
10	43.3		14.8			
17	43.3		14.8			
24	43.3		14.8			
31			14.8			
June 7			14.8			
14			14.8			
21			16.0			
28			16.0			
July 5			16.0			
12			16.0	(c)		
19			16.0	(c)		
26			16.0	(c)	33.3	
Aug. 2			16.0	(c)	33.3	
9					33.3	
16					33.3	
23					33.3	
30					33.3	
Sept. 6					33.3	
13					33.3	
20					33.3	
27					33.3	13.0
Oct. 4					33.3	13.0
11					33.3	13.0
18					33.3	13.0
25						13.0
Nov. 1						13.0
8						13.0
15						13.0
22						13.0
29						13.0
Dec. 6						13.0
13						13.0
20						13.0
27						13.0

(a) Texas, 2 doz. bunched, equivalent to 18 lb.

(b) Also Texas quotations.

(c) Also New Jersey quotations.

Source: Agriculture Canada.

Appendix Table 10b

Beets: Weekly Wholesale to Retail Prices at Montreal and Toronto, 1974

Week Ending	Montreal				Toronto				
	Texas		Quebec		Calif.	Ontario			
	2 doz. bchd. 18 lb.	Topped 50-lb. bag	1 doz. bchd. 9 lb.	Cello 12x2 lb.	Topped 50-lb. bag	2 doz. bchd. 18 lb.	1 doz. bchd. 9 lb.	Cello 12x2 lb.	Topped 50-lb. bu.
Jan.	4			9.9	5.3				6.8
	11			9.9	5.3				5.8
	18			9.9	5.3				6.0
	25			9.9	5.3				6.8
Feb.	1			9.9	5.4				6.8
	8			9.9	5.4				6.8
	15			8.9	5.4				6.8
	22			9.9	5.8	37.5			6.8
Mar.	1			9.9	5.8	36.8		11.0	6.8
	8			9.9	5.8	34.1		11.0	6.5
	15			9.9	6.0	34.1		11.0	6.3
	22			9.4	6.0	34.1		11.0	6.3
April	29			8.9	6.3	34.1		11.0	6.8
	5			7.8	5.3	34.1		11.0	6.8
	12	31.3	11.8	7.8	5.3	36.8		11.0	6.8
	19	31.3	12.3	8.9		36.8		11.0	6.8
May	26		12.3	9.9		36.8		8.9	6.3
	3		11.8			36.8		8.9	
	10		11.8			36.8		10.4	
	17		12.8			36.8		11.0	
June	24		12.8					11.0	
	31		13.8					11.0	
	7		15.3					11.0	
	14		14.3			41.0			
21		14.8				41.0			
28						41.0			
			25.0						37.6

Beets: Weekly Wholesale to Retail Prices at Winnipeg and Vancouver, 1974

Week Ending	Winnipeg				Vancouver	
	Calif.	Texas	Man.	Ont.	Texas	B.C.
	2 doz. bchd. 18 lb.	Topped 50-lb. bag	1 doz. bchd. 9 lb.	Topped 50 lb. bag	Topped 50-lb. bag	Topped 50-lb. bag 1 doz. bchd. 9 lb.
Jan. 4						
11				8.1		13.3
18				7.8		13.3
25				7.5		13.3
Feb. 1				7.8		13.3
8				8.3		13.3
15				8.3		13.3
22				8.3		13.4
Mar. 1				9.5		13.4
8				7.5		13.5
15		13.0			14.6	
22		13.5			14.6 (b)	
29		12.0			14.6	
April 5		11.5			15.0	42.0
12		11.5			16.0	
19		11.5			16.0	
26		11.9			16.0	
May 3		12.1			16.0	
10		12.1			16.0	
17		11.9			16.0	
24		12.8			16.0	
31		12.7			16.3	
June 7		13.3			16.5	41.1
14		13.0			16.5	37.6
21		13.0			16.8	37.6
28					16.0	39.4

Appendix Table 10c (concl.)

Beets: Weekly Wholesale to Retail Prices at Winnipeg and Vancouver, 1974

Week Ending	Winnipeg				Vancouver		
	Calif.	Texas	Man.		Texas	B.C.	
	2 doz. bchd. 18 lb.	Topped 50-lb. bag	1 doz. bchd. 9 lb.	Topped 50-lb. bag	Topped 50-lb. bag	1 doz. bchd. 9 lb.	
- cents per pound -							
July 5							39.4
12							39.4
19				14.3			39.4
26			36.7	14.3	15.5		39.4
Aug. 2			36.1	13.8	14.4		39.4
			33.9	13.8	14.4		39.4
9					14.4		39.4
16			34.8		14.4		39.4
23			35.3				39.4
30			35.3				39.4
Sept. 6	47.2		36.7	13.6			39.4
	38.9		37.6	13.6			39.4
13	41.7		37.6	13.6			39.4
20	42.4			13.6			39.4
27	43.1			13.6			39.4
Oct. 4	43.5			13.6			38.9
	43.5			13.6			38.9
11	39.6			13.5			38.1
18	46.7			14.3			36.4
23	41.8			14.3			37.0
Nov. 1	42.1			14.3			37.0
	41.7			14.3			37.0
8	41.7 (a)			14.3			37.0
15	41.7 (a)			14.3			
22	41.7 (a)			14.3			
29	41.7 (a)			14.3			
Dec. 6	41.7 (a)			13.5			
	41.7 (a)			13.3			
13	41.7 (a)			13.3			
20	41.7 (a)	16.0		13.3			
27	41.7 (a)	16.0		13.3			

(a) Also Texas.
(b) Mexico.
Source: Agriculture Canada.

Beets: Production, Gross Returns and Gross Returns
per Pound for Beets for Processing in Ontario,
1961-1974

	<u>No. of Growers</u>	<u>Production</u> '000 lb.	<u>Gross Returns</u> \$	<u>Gross Returns</u> <u>Per Ton</u> \$	<u>Per lb.</u> ¢
1961	51	8,892	146,940	33.05	1.65
1962	53	11,406	207,988	36.47	1.82
1963	46	14,104	230,036	32.62	1.63
1964	59	15,374	256,438	33.36	1.67
1965	55	12,062	204,572	33.92	1.70
Average 1961-65	53	12,368	209,195	33.83	1.69
1966	51	12,110	199,876	33.01	1.65
1967	50	11,566	200,323	34.64	1.73
1968	47	15,700	277,733	35.38	1.77
1969	44	13,670	248,521	36.36	1.82
1970	41	14,758	261,881	35.49	1.77
Average 1966-70	47	13,561	237,667	35.05	1.75
1971	44	17,510	315,443	36.03	1.80
1972	41	17,480	305,376	34.94	1.75
1973	37	19,918	346,872	34.83	1.74
1974	..	24,000 ^(a)	651,360	54.28	2.71
Average 1971-74	..	19,727	404,763	41.04	2.05

(a) Domestic acquirements as recorded by Statistics Canada.

Source: Ontario Vegetable Growers Marketing Board.

Beets: Processing Market Production, Farm Value and
Farm Value per Pound, United States, by States,
1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Production '000 lb. -					
New York	146,400	96,400	132,000	172,400	136,800
Texas	22,500	35,700	43,700	28,000	32,475
Wisconsin	135,300	126,000	121,200	172,500	138,750
Other States	<u>75,300</u>	<u>71,700</u>	<u>104,800</u>	<u>109,300</u>	<u>90,275</u>
Total	379,500	329,800	401,700	482,200	398,300
- Farm Value \$ '000 -					
New York	1,347	1,017	1,782	3,129	1,819
Texas	290	511	531	430	441
Wisconsin	1,454	1,399	1,588	2,950	1,848
Other States	<u>968</u>	<u>983</u>	<u>1,619</u>	<u>3,378</u>	<u>1,737</u>
Total	4,059	3,910	5,520	9,887	5,844
- Farm Value ¢ per lb. -					
New York	0.9	1.1	1.4	1.8	1.3
Texas	1.3	1.4	1.2	1.5	1.4
Wisconsin	1.1	1.1	1.3	1.7	1.3
Other States	1.3	1.4	1.5	3.1	1.9
Total	1.1	1.2	1.4	2.1	1.5

Source: U.S. Department of Agriculture.

Beets: Dates of Application and Removal of the Seasonal, M.F.N.
Specific Duty by Tariff Region, 1966-1975

Year (a)	Maritime Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	July 6	Jan. 4	182	June 23	Dec. 22	182	-	-	-
1967	July 26	Nov. 20	117	June 27	Dec. 26	182	-	-	-
1968	July 19	Jan. 17	182	June 14	Dec. 13	182	-	-	-
1969	July 22	Jan. 20	182	June 18	Dec. 17	182	Aug. 13	Feb. 8	179
1970	July 24	Dec. 4	133	-	-	-	-	-	-
1971	July 22	Oct. 20	90	June 30	Nov. 2	125	-	-	-
1972	July 21	Jan. 19	182	-	-	-	-	-	-
1973	July 20	Jan. 18	182	June 8	Oct. 8	122	Aug. 3	Feb. 1	182
1974	July 26	Jan. 24	182	-	-	-	-	-	-
1975									

(a) Government fiscal year beginning April 1st, ending March 31st of following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ont.

(c) Includes Thunder Bay and west thereof.

Source: National Revenue

Fresh Market Beets: Dutiable Imports and the Ad Valorem Equivalent of the M.F.N. Specific Duty, 1966-1974

Year	Imports				Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.			
1966	1,672	-	-	1,672	4.7	1.0	21.3
1967	1,950	7	0.3	1,943	5.2	1.0	19.2
1968	1,814	56	3.1	1,758	5.5	1.0	18.2
1969	1,601	12	0.8	1,589	5.5	1.0	18.2
1970	1,664	7	0.4	1,657	6.1	1.0	16.4
Average 1966-70	1,740	16	0.9	1,724	5.4	1.0	18.5
1971	1,242	14	1.1	1,229	7.2	1.0	13.9
1972	794	5	0.6	789	8.0	1.0	12.5
1973	1,494	1,220	81.7	273	7.7	1.0	13.0
1974	1,040	944	90.8	96	10.8	1.0	9.3
Average 1971-74	1,143	571	47.8	59.7	7.7	1.0	13.0

Source: Tariff Board estimates.

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BROCCOLI

Broccoli, (Brassica oleracea, var. italica) is a cabbage-like vegetable of Mediterranean and Asia Minor origin. It was cultivated in Italy in ancient Roman times, was introduced into England about 1720 and subsequently to America. In 1883, a French seed firm referred to broccoli as the sprouting or asparagus broccoli. Prior to 1920 it was a little known vegetable in North America, despite its much earlier introduction, but shortly thereafter it became a commercial entity and now enjoys considerable popularity. The flavour is similar to cabbage but milder and, like cabbage, it has a high Vitamin A content (2,600 international units per 100 grams).

Two Chinese vegetables, gai-lon (or gay-lun) and sen-choy are forms of broccoli, although it is believed that these have at least on occasion been imported under the tariff provision for "vegetables, n.o.p.," rather than that for broccoli. The name "heading broccoli" is sometimes applied to cauliflower (B. oleracea, var. botrytis); cauliflower, broccoli, Brussels sprouts, cabbage, kale and kohlrabi are all varieties of the same species, all having been developed from B. oleracea, the wild or sea cabbage. Another vegetable of a related species, B. ruvo, is known variously as Italian turnips, Italian turnip broccoli or broccoli rab; on importation, it is classified as a "vegetable, n.o.p.," and is not further considered here.

GROWING, HARVESTING AND MARKETING

Like cabbage, broccoli thrives in moderate to cool climates. Most North American grown broccoli is of the Italian green type called Calabrese. Varieties have been developed to meet regional climatic and soil conditions, and for freezing as opposed to fresh market consumption. It is propagated by seeds either sown directly in the field or in beds to produce transplants, the latter practice being more widely used in Canada.

Broccoli reaches harvest in 60 to 150 days, depending upon the variety and the weather. It is vitally important that it be harvested at the correct time, i.e., when the shoots have green unopened bud clusters and are still compact. Yellow buds and loose clusters spoil the product. On most varieties, the central bud matures first and by removing it first the growth of lateral buds is encouraged; unfortunately, these buds develop unevenly and cannot be harvested all at one time. This has led modern breeders to develop hybrid broccoli which has a tendency to produce only the solid, single cluster with little or no tendency to lateral bud development.

Broccoli is grown in home gardens throughout Canada, but commercially only in the very southern-most regions of the country. The marketing season for domestic broccoli runs from approximately early July to late November (see Appendix Table 4). Outside of these months no domestic fresh supplies are available and, accordingly, imports account for all domestic consumption (see Appendix Table 5) and do not compete with the locally produced product. With a short storage life of 10 to 14 days, this vegetable must be marketed shortly after harvesting.

ACREAGE, PRODUCTION AND FARM VALUE

The farming of broccoli on a commercial scale is primarily confined to the Provinces of British Columbia, Prince Edward Island, Ontario, and Quebec. According to the Census of Agriculture for Canada for 1971, 341 farms reported broccoli as a commercial crop, for a total of 984 acres or an average of 3 acres per reporting farm. In 1961, according to the same source, there were 595 acres of broccoli but the number of farms reporting was not given. Acreage distribution by province and region for 1961 and 1971 are given in Appendix Table 1. It must be noted that the Census data does not include unreported acreage in market gardens, which could account for a substantial proportion of the total fresh market supply.

British Columbia appears, from the limited data available, to be the principal producing area in Canada, accounting in 1971 for 597 acres or 61 per cent of those reported. This is the only province for which production figures are normally compiled; there are no published statistics with respect to Canadian production and farm value, or for acreage other than for 1961 and 1971. However, the Board has estimated Canadian production from 1967 to 1974 (see Table 1). Based on acquirements by Canadian processors, production for processing averaged 4.1 million pounds during 1971-74 or 53 per cent of total estimated output (see Table 2). The remaining 47 per cent went to the fresh market.

Table 1: Broccoli: Estimated Canadian Production, 1967-73

- '000 lb. -

<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>Average 1967-70</u>
5,000	6,300	8,800	9,500	7,400
<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
7,000	8,400	7,300	7,900	7,650

Source: Derived from Statistics Canada and Agriculture Canada data.

Acreage, production and yield figures for British Columbia are given in detail in Appendix Table 2. It will be noted that more than three-quarters of the province's crop is used for processing, e.g., 2.8 million pounds in 1973 as against 716 thousand pounds for fresh consumption. This province accounts for more than half of all broccoli grown in Canada for processing.

Between 1968 and 1973 total production of broccoli in British Columbia averaged 3.5 million pounds annually, with a peak output of 4 million pounds in 1971; yield averaged 6,357 pounds per acre, ranging from a low of 5,706 pounds in 1968 and 1972 to a high of 7,197 in 1971. Farm value averaged \$336,700 per year.

SUPPLY AND DISPOSITION

All broccoli grown in Canada is either consumed fresh or is processed in Canada; none is exported. Canadian consumption of broccoli averaged 33.1 million pounds annually during the period 1971-74, up 56 per cent in comparison with the period 1967-70; per capita consumption increased from 1.02 pounds to 1.51 pounds, or by 48 per cent. Growth was primarily in the consumption of fresh broccoli, which accounted for over four-fifths of total domestic disappearance in the period 1971-74.

Since average annual Canadian production remained relatively constant from the period 1967-70 to 1971-73, averaging 7.4 million pounds and 7.7 million pounds respectively, the aforementioned sharp increase in consumption was almost entirely attributable to increased imports. Total imports, including processed broccoli converted to fresh equivalent weight, rose from an annual average of some 13.8 million pounds in 1967-70 to 25.5 million pounds during 1971-74, an increase of 84 per cent. At the same time, imports as a proportion of total domestic disappearance increased from 65 per cent to 77 per cent.

Total consumption of broccoli in the processed form amounted to an average of 6.2 million pounds during 1971-74, an increase of 19.4 per cent over the period 1967-70. Canadian growers experienced little competition from imports of fresh broccoli for processing; such imports are believed to have been small; in 1974 they comprised about 10 per cent of domestic production for processing or some 6 per cent of total processed consumption. However, Canadian growers and processors, lost considerable ground proportionately to processed imports. In fresh equivalent weight, processed imports increased by 141.5 per cent, expanding their share of the market from 16.9 per cent in 1967-70 to 34.2 per cent in 1971-74. As a result Canadian production for processing has dropped in recent years.

As mentioned previously, most broccoli is for the fresh market, and, furthermore, fresh market consumption has risen more rapidly than processed consumption. Fresh market imports have also made very substantial gains. In 1971-74, total imports for the fresh market amounted to 23.3 million pounds or 86.7 per cent of total consumption compared with 80.6 during the period 1967-70; the proportion supplied by Canadian growers dropped from 19.4 to 13.3 per cent. Since broccoli cannot be stored, the Canadian consumer is entirely dependent upon imports during the off-season, and, with the increasing popularity of this vegetable, imports during this season have increased. However, imports also gained a larger share of the domestic market, as demonstrated in Table 3, during the Canadian production season; imports increased their share during the July to November period from 42.1 per cent in 1967-70 to 63.6 per cent in 1971-74, and, as shown in Appendix Table 5, import penetration rose throughout the production season, and was not confined to the shoulder months only.

Table 2: Broccoli: Supply and Disposition, 1967-1974

	<u>Average 1967-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1967-70 to 1971-74</u>
<u>Total Production (a)</u>	7,400	7,000	8,400	7,300	7,900	7,650	+ 3.4
<u>Total Imports</u>	13,803	18,151	24,012	27,256	32,395	25,453	+ 84.4
<u>Fresh</u>	12,929	17,358	22,050	24,775	29,187	23,342	+ 80.5
<u>Processed (frozen) (b)</u>	874	793	1,962	2,481	3,208	2,111	+141.5
<u>Total Supply Available</u>	21,203	25,151	32,412	34,556	40,295	33,103	+ 56.1
<u>Total Exports</u>	-	-	-	-	-	-	-
<u>Total Domestic Disappearance</u>	21,203	25,151	32,412	34,556	40,295	33,103	+ 56.1
<u>Consumed in processed form</u>	5,172	4,714	7,071	5,663	7,682	6,174	+ 19.4
<u>From domestic production</u>	4,298	3,921	5,109	3,182	4,041	4,063	- 5.5
<u>Imported processed</u>	874	793	1,962	2,481	3,208	2,111	+141.5
<u>Imported fresh</u>	-	-	(c)	(c)	433	..	..
<u>Fresh Market Consumption</u>	16,031	20,437	25,341	28,893	32,613	26,929	+ 68.0
<u>Fresh domestic production</u>	3,102	3,079	3,291	4,118	3,859	3,587	+ 15.6
<u>Imported</u>	12,929	17,358	22,050	24,775	28,754	23,342	+ 80.5

(a) Tariff Board estimate.

(b) Converted to fresh equivalent on the basis of 1.32 fresh per 1 pound of frozen product.

(c) Confidential.

Source: Derived from Statistics Canada and Agriculture Canada data.

Table 3: Broccoli: Production, Fresh Imports and Fresh Consumption, On-Season and Off-Season, 1967-70 and 1971-74

	<u>Average</u> <u>1967-70</u>	<u>Average</u> <u>1971-74</u>	<u>% Change</u> <u>1967-70 to</u> <u>1971-74</u>
- '000 lb. -			
<u>Production for</u>			
<u>Fresh Market</u>			
On-season ^(a)	3,102	3,565	+ 14.9
Off-season ^(b)	-	22	-
Total	<u>3,102</u>	<u>3,587</u>	+ 15.6
<u>Imports</u>			
On-season ^(a)	2,259	6,222	+ 175.4
Off-season ^(b)	10,670	17,120	+ 60.4
Total	<u>12,929</u>	<u>23,342</u>	+ 80.5
<u>Consumption</u>			
On-season ^(a)	5,361	9,787	+ 82.6
Off-season ^(b)	10,670	17,142	+ 60.7
Total	<u>16,031</u>	<u>26,929</u>	+ 68.0
<u>Imports as % of</u>			
<u>Fresh Consumption</u>			
On-season ^(a)	42.1	63.6	
Off-season ^(b)	100.00	99.9	
Total	80.6	86.7	

(a) July-November.

(b) January-June and December.

Source: Derived from Statistics Canada and Agriculture Canada data.

IMPORTS

Almost all broccoli imports originate in the United States, especially the State of California, which accounted for 98 per cent of U.S. shipments to Canada in 1974 (see Appendix Tables 6 and 9). The remainder is mostly imported from Mexico. The western region accounted for 42 per cent of fresh broccoli imports, the central region for 56 per cent, and the Maritimes for the remainder. Western Canada, with 27 per cent of the population, apparently favours broccoli as a vegetable to a much greater degree than other parts of the country. Total Canadian imports of broccoli were valued at \$4.1 million in 1974.

PRICES

The farm value of broccoli is available for British Columbia growers only and is shown for the years 1968 to 1973 in Appendix Table 2. These figures are believed, however, to be indicative of the price to growers in other areas of Canada. It will be noted that the farm value of fresh market broccoli in British Columbia has remained fairly constant, averaging 17.4 cents per pound for the six-year period 1968-73. Prices of broccoli for processing also moved within narrow limits during 1968 to 1972, averaging 7.4 cents per pound, but jumping to 10 cents in 1973. It will be noted that the farm price for processing broccoli was generally less than one-half of that for the fresh market product.

Weekly wholesale-to-retail prices for imported and domestic broccoli for 1974 (see Appendix Table 10 and its summary in Table 4 below) clearly indicate that in Halifax, Montreal, Toronto, and Winnipeg offerings of imported broccoli occur in sufficient quantity throughout the year, both in season and out of season, to warrant price quotations. The only exception is Vancouver, where no prices are quoted during September and October. Furthermore, only Montreal, Toronto, and Vancouver quote prices for domestic broccoli, in the case of Montreal at levels above that of imports, and for the other two market centres, below. It is noteworthy that for broccoli, where, unlike most other vegetables, domestic producers are not a dominant factor, there is an absence of any seasonal fluctuation in wholesale prices. Canadian consumers do not benefit from lower in-season prices.

Table 4: Wholesale to Retail Selling Prices for Domestic and Imported Broccoli in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974

	<u>Halifax</u>		<u>Montreal</u>		<u>Toronto</u>		<u>Winnipeg</u>		<u>Vancouver</u>	
	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>
- ¢ per lb. -										
Jan.	-	35.0	-	29.9	-	28.4	-	31.8	-	31.7
Feb.	-	39.7	-	31.3	-	29.2	-	31.1	-	32.8
Mar.	-	36.9	-	27.8	-	25.8	-	29.8	-	30.5
Apr.	-	37.1	-	30.1	-	38.8	-	30.1	-	32.5
May	-	36.8	-	27.4	-	27.9	-	29.1	-	30.2
June	-	36.8	-	27.6	-	25.4	-	29.3	-	32.0
July	-	35.4	32.8	30.1	-	29.7	-	30.9	-	33.4
Aug.	-	36.5	31.9	25.0	-	27.3	-	31.2	29.0	33.7
Sept.	-	38.4	28.7	26.9	-	29.8	-	30.9	27.7	-
Oct.	-	37.5	-	27.9	23.7	26.8	-	30.4	26.1	-
Nov.	-	35.3	-	28.6	-	27.6	-	31.7	26.6	33.1
Dec.	-	33.2	-	26.8	-	27.2	-	30.6	-	32.5

Source: Appendix Tables 10a and 10b.

The information collected by the Board with respect to the landed cost of imported broccoli of California origin at various Canadian market centres is summarized in Table 5; the detailed data on which this table is based can be found in Appendix Tables 11a and 11b. The duty, at 10 per cent ad valorem, is the smallest component of the total landed cost. Freight, brokerage and other transportation costs combined are a much more important factor in determining the landed cost and, consequently, offer a greater degree of protection to domestic growers than does the duty. In 1974 in Vancouver, freight, brokerage and other transportation costs were 14-22 per cent of landed costs, in Winnipeg 19-28 per cent, in Montreal 23-28 per cent, and in Toronto, 18-23 per cent.

Table 5: The Landed Cost of Imported Broccoli in Toronto, Montreal, Winnipeg, and Vancouver, 1972-1974

		<u>Cost</u> <u>f.o.b.</u>	<u>Freight</u> <u>Brokerage</u> <u>etc.</u>	<u>Duty</u>	<u>Total</u> <u>Landed Cost</u>
- range in ¢ per lb. -					
Toronto	1972	12.1-18.8	4.7-5.9	1.2-1.8	16.8-25.0
	1973	13.9-19.0	4.4-5.5	1.4-1.5	20.4-24.5
	1974	17.5-22.1	4.8-5.9	1.7-2.2	22.9-29.8
Montreal	1974	14.5-17.6	5.2-6.3	1.4-1.8	21.4-25.4
Winnipeg	1974	13.6-20.9	4.2-7.1	1.4-2.0	20.1-29.0
Vancouver	1974	15.5-26.1	2.2-5.5	1.6-2.0	19.9-28.3

Source: Appendix Tables 11a and 11b.

CANADA-UNITED STATES COMPARISONS

The U.S. industry, with an average output of 356 million pounds in 1971-74, is many times greater than the Canadian broccoli industry (see Appendix Table 12). California, with four crops per year accounts for the bulk of U.S. production. California growers averaged about 7,500 pounds per acre during 1971-74, a yield well above that realized by growers in British Columbia during the 1970s, an average of 6,300 pounds. Taking into consideration the higher yields in California and this state's multicrop season it is probable that total costs of production are lower there than in Canada. This appears to be substantiated by a comparison of average farm values in the following table. Note that these are at least 10 per cent lower in California with respect to broccoli for the fresh market. For processing broccoli average farm values were lower in British Columbia, until 1973 when California returns, and presumably costs to the processor in that state, were lower.

Table 6: Broccoli: Farm Value per Pound, Fresh and Processing, British Columbia and California, 1971-73

	<u>For Fresh Market</u>	<u>For Processing</u> (a)
	- ¢ per lb. (b) -	
<u>1971</u>		
British Columbia	17.2	7.9
California	14.7	8.8
<u>1972</u>		
British Columbia	17.0	7.1
California	13.9	8.8
<u>1973</u>		
British Columbia	18.0	10.0
California	15.8	9.4

(a) California prices for processing broccoli not available prior to 1971.

(b) In national currencies, unadjusted for exchange rates.

Source: B.C. Department of Agriculture; U.S. Department of Agriculture.

TARIFF CONSIDERATIONS

Fresh broccoli is classified under tariff item 8727-1, which is described as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Broccoli	Free	10 p.c. or Free	30 p.c. or Free

In any 12 month period ending 31st March, the ad valorem duty shall not be maintained in force in excess of 16 weeks, and the Free rate shall apply whenever the ad valorem duty is not in effect.

The current nomenclature and rates of duty have been in effect since January 1, 1968. From 1959 to 1967, the ad valorem duties of 10 p.c. M.F.N., applied throughout the year. Prior to April 10, 1959, broccoli was classified under "vegetables, fresh, n.o.p." at 10 p.c. M.F.N. Tariff item 8727-1 is bound under GATT.

The Horticultural Council in its brief to the Board proposed that the ad valorem duty be increased to 20 per cent and the seasonal period be extended to 20 weeks, divisible into two separate periods. This proposal applied to both broccoli for the fresh market and fresh broccoli for processing.

Since its inception in 1968, the seasonal duty has never been applied in the Maritime tariff region (see Appendix Table 13). It has been applied in the central tariff region from 1972 onwards only. In the western tariff region, the seasonal duty has been in effect since 1969. The length of application has varied, from year to year and from region to region, from 68 days to 112 days. The maximum of 16 weeks, or 112 days, allowable at present, has occurred only four times, twice in the western region and twice in the central region. It would appear therefore that in the past there was little need to extend the period of application of the seasonal duty. This evidence also points out that an extended period would not necessarily result in a maximum application.

The application of the seasonal duty in the central region had the effect of greatly increasing the volume of dutiable imports, as shown in Appendix Table 14.

With an ad valorem, rather than a specific, seasonal duty the level of protection provided growers has not experienced any erosion, which has occurred for many vegetables with a specific duty in the face of increasing produce prices. In fact, even with a specific duty, erosion would not have been a serious problem inasmuch as the average unit price of dutiable broccoli imports, or average farm returns, has increased very little since 1968.

The proposal of the Horticultural Council to raise the seasonal duty on broccoli from 10 p.c. to 20 p.c. would, if implemented, double the level of existing protection. On the basis of an average import value for dutiable imports of 13 cents per pound, with the assumptions as explained in the introduction to this report, the Board estimates the cost of the additional duty to Canadian consumers, at approximately \$266,000 equivalent to between 4 and 5 cents per year for a family of four. The benefit to growers, thus calculated, would amount, at an average yield of 6,300 pounds, to \$82 per acre.

U.S. growers with four crops per year, at higher yields per acre per crop, and larger farms, quite clearly have a competitive advantage over Canadian growers of broccoli for the fresh market despite the substantial costs of transportation incurred in marketing in Canada. On the other hand, maintaining the present level of seasonal tariff protection would most likely result in further import penetration.

The proposal of the Horticultural Council did not differentiate between fresh market broccoli and processing broccoli. Consequently the recommended increase in the duty from 10 p.c. to 20 p.c. for processing broccoli would increase the cost of this product to broccoli processors. On the other hand the disadvantages of producing fresh market broccoli in Canada, over the United States, would also in large measure seem to apply to processing broccoli, and therefore the same level of protection would appear to be called for. The apparent

similarity in average returns to the growers in British Columbia and California suggests, however, that the costs of production for growing broccoli for processing in the two countries may not be far apart. Moreover, imports of broccoli for processing are believed to be minor and are much less significant than in-season imports of fresh market broccoli.

The Canadian Food Processors Association proposed a separate tariff item for broccoli when imported for processing - "Broccoli for manufacture" - with the same ad valorem seasonal duty and length of application as now apply under tariff item 8727-1. In line with its general proposals, the Association also suggested that the period of application of the seasonal duty need not necessarily be identical to the period for broccoli imported for the fresh market.

The Board gave consideration to introducing a specific seasonal duty for broccoli, combined with a minimum ad valorem rate. To do so would be consistent with the rate structure recommended for other fresh vegetables. The specific seasonal duty with an ad valorem equivalent of 20 per cent, as proposed by the Council, would, on the basis of the average unit value of dutiable imports of fresh market broccoli in 1974 of 13 cents per pound, be 2.6 cents; at a level of 15 per cent, it would be 2.0 cents per pound. An ad valorem rate of duty of 20 per cent would have a lower specific value for processing broccoli because its price is lower than for fresh market broccoli. The average return to the grower in British Columbia in 1973 was 10.0 cents per pound for broccoli grown for processing; thus, an ad valorem duty of 20 per cent would have a specific value of 2 cents per pound.

Pre-packaged broccoli, or consumer packs, are not now included in the provision following tariff item 8731-1 for additional duty when imported in individual packages of less than 5 pounds, nor were any proposals made that this vegetable should be included for that purpose.

CONCLUSIONS

Canadian fresh market consumption of broccoli has increased rapidly. Most of this growth has, however, accrued to imports, not only out-of-season but also in-season. Nearly two-thirds of consumption during the Canadian production season is presently estimated to be imported. Consumption of processed broccoli has also grown, and in this respect all of the increase has accrued to foreign growers, although most of the imports are already in the processed form; fresh broccoli imports for processing are relatively small. With higher yields per acre and several crops per year, growers in California appear to have a distinct advantage over Canadian growers, an advantage particularly applicable to fresh market broccoli. As a result of the above factors, since 1967-70 Canadian production is estimated to have increased by less than 5 per cent, while total consumption rose by at least 50 per cent.

While the Board was left with the impression that Canadian growers have been slow to exploit the opportunity to participate more fully in satisfying the growing demand for broccoli, a vegetable well-suited to the growing conditions in the southern-most regions of Canada, it nevertheless concludes that, with respect to fresh market broccoli,

growers should be given a somewhat greater incentive. The Board is of the opinion, however, that the present level of protection is adequate with respect to broccoli for processing and that a separate tariff item should be introduced for this product. Furthermore, the present period of application of the seasonal duty, i.e., 16 weeks, in the Board's opinion, is of sufficient duration to cover adequately the domestic marketing season for this vegetable. For example, some 83 per cent of domestic fresh market broccoli is marketed during the 13 weeks of August, September, and October; a substantial proportion of the remaining domestic crop would be covered by the further three weeks for which tariff protection is now afforded.

The Board is of the opinion that, since little broccoli for the fresh market is imported in individually wrapped consumer packs of 5 pounds or less, there is no necessity to provide for an additional duty for broccoli imported in that form. The Board, therefore, recommends that no provision be made for such additional duties for broccoli.

Thus the Board recommends that the duty for fresh broccoli be set at a specific rate of $2\frac{1}{2}$ cents per pound with a minimum rate of 15 p.c. under the Most-Favoured-Nation Tariff, that the B.P. rate remain Free and that the rate under the General Tariff be 5 cents per pound with a minimum rate of 30 p.c. These rates shall apply for a period not exceeding 16 weeks during any 12-month period ending 31st March, and the Free rate shall apply at all other times. The Board also recommends that the duty for fresh broccoli imported for processing be established at a rate of $1\frac{1}{2}$ cents per pound with a rate not less than 10 p.c. M.F.N., that the B.P. rate be Free, and that the General rate be 3 cents per pound but not less than 20 p.c. The rate for processing broccoli shall apply in all months of the year.

RECOMMENDATIONS

The Board recommends that present tariff item 8727-1 be deleted and that the following schedule be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Broccoli, n.o.p. per pound	Free	2½ cts. but not less than 15 p.c., or Free	5 cts. but not less than 30 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 16 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Broccoli for processing			
..... per pound	Free	1½ cts. but not less than 10 p.c.	3 cts. but not less than 20 p.c.

Broccoli: Acreage and Number of Farms, by Province
and Region, 1961 and 1971

	1961		1971		
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	132	22.2	104	10.6	41
Nfld.	2	0.3	*	*	6
P.E.I.	61	10.3	97	9.9	14
N.S.	2	0.3	5	0.5	14
N.B.	67	11.3	2	0.2	7
Central Region	271	45.5	262	26.6	200
Que.	86	14.4	85	8.6	59
Ont.	185	31.1	177	18.0	141
Western Region	192	32.3	618	62.8	100
Man.	8	1.4	13	1.3	14
Sask.	2	0.3	2	0.2	5
Alta.	3	0.5	6	0.6	15
B.C.	179	30.1	597	60.7	66
Canada ^(a)	595	100.0	984	100.0	341

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Appendix Table 2

Broccoli: Acreage, Production and Value of Broccoli, British Columbia, 1968 to 1973

	Fresh			Roadside Sales			Processed (Manufactured)				Total		
	Acres	Quantity '000 lb.	Price ¢/lb.	Quantity '000 lb.	Price ¢/lb.	Total Value \$	Acres	Quantity '000 lb.	Price ¢/lb.	Total Value \$	Acres	Quantity '000 lb.	Total Value \$
1968	53	462	16.1			74,382	437	2,334	7.7	179,718	490	2,796	254,100
1969	50	490	18.1			88,472	455	2,770	7.6	209,179	505	3,260	297,651
1970	67.5	668	18.0			120,130	548	3,278	6.8	223,400	615.5	3,946	343,530
1971	71	690	17.2			118,465	487	3,326	7.9	261,514	558	4,016	379,979
1972	76	890	17.0	6	10.0	151,600	530	2,562	7.1	181,904	606	3,458	334,104
1973	73.5	716	18.0	6	10.5	128,950	457	2,816	10.0	281,600	530.5	3,538	411,180

Source: B.C. Department of Agriculture.

Broccoli: Supply and Disposition Ratios, Canada, 1967-1974

	<u>Average 1967-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- per cent -					
<u>Per Cent of Domestic Production:</u>						
Sold for Processing	58.1	56.0	60.8	43.6	51.2	53.1
Sold to Domestic Fresh Market	41.9	44.0	39.2	56.4	48.8	46.9
Exported	-	-	-	-	-	-
<u>Total Imports as Per Cent:</u>						
of Total Supply Available	65.1	72.2	74.1	78.9	80.4	76.9
of Total Domestic Disappearance	65.1	72.2	74.1	78.9	80.4	76.9
<u>Fresh Imports as Per Cent:</u>						
of Fresh Market Consumption	80.6	84.9	87.0	85.7	88.2	86.7
<u>Processed Imports as Per Cent:</u>						
of Consumption in Processed form	16.9	16.8	27.7	43.8	41.8	34.2
of Total Domestic Disappearance	4.1	3.2	6.1	7.2	8.0	6.4
<u>Per Cent of Fresh Market Consumption:</u>						
From Domestic Production	19.4	15.1	13.0	14.3	11.8	13.3
From Imports	80.6	84.9	87.0	85.7	88.2	86.7
<u>Per Cent of Total Domestic Disappearance:</u>						
Consumed in Processed form	24.4	18.7	21.8	16.4	19.1	18.7
Consumed in Fresh form	75.6	81.3	78.2	83.6	80.9	81.3
<u>Production as % of Total Domestic Disappearance</u>	34.9	27.8	25.9	21.1	19.6	23.1

Source: Table 2.

Appendix Table 4

Broccoli: Estimated Monthly Distribution of Fresh Shipments^(a)
1967-1974

<u>Month</u>	<u>Average 1967-70</u>	<u>Average 1971-74</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
- thousand pounds -						
Jan.	-	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
May	-	-	-	-	-	-
June	-	16	-	-	62	-
July	242	244	203	260	350	162
Aug.	766	888	323	912	1,244	1,073
Sept.	887	1,087	1,093	1,007	1,067	1,181
Oct.	924	995	1,013	770	1,141	1,054
Nov.	282	352	446	342	247	374
Dec.	-	6	-	-	8	15
Year	3,102	3,587	3,079	3,291	4,118	3,859

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 5

Broccoli: Estimated Monthly Distribution of Fresh Market
Consumption, 1967-70 and 1971-74

<u>Month</u>	<u>Average 1967-70</u>	<u>Average 1971-74</u>			<u>Imports as % of Con- sumption</u>
	<u>Imports as % of Con- sumption</u>	<u>From Domestic Production</u>	<u>From Imports</u>	<u>Total Consumption</u>	
- per cent -		- thousand pounds -			- per cent -
Jan.	100.0	-	2,477	2,477	100.0
Feb.	100.0	-	2,410	2,410	100.0
Mar.	100.0	-	2,466	2,466	100.0
Apr.	100.0	-	2,279	2,279	100.0
May	100.0	-	2,864	2,864	100.0
June	100.0	16	2,208	2,224	99.3
July	68.7	244	1,262	1,506	83.8
Aug.	15.5	888	742	1,630	45.5
Sept.	12.4	1,087	590	1,677	35.2
Oct.	30.6	995	1,508	2,503	60.2
Nov.	78.9	352	2,119	2,471	85.8
Dec.	100.0	6	2,416	2,422	99.8
Total	80.6	3,587	23,342	26,929	86.7

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 6

Broccoli: Imports by Country of Origin, 1967-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Hong Kong</u>	<u>Puerto Rico</u>	<u>Others</u>	<u>Total</u>
			-	thousand pounds	-	
1967	9,723	7	-	-	-	9,730
1968	12,479	2	-	-	-	12,482
1969	13,506	18	-	-	-	13,524
1970	15,976	-	2	1	-	15,979
Average 1967-70	12,921	7	1	*	-	12,929
1971	17,087	265	4	1	1	17,358
1972	21,029	1,015	5	1	-	22,050
1973	23,855	915	5	-	1	24,775
1974	28,284	901	2	-	-	29,187
1975	33,991	382	-	-	-	34,372
Average 1971-75	24,849	696	3	*	*	25,548

Source: Statistics Canada.

Appendix Table 7

Broccoli: Imports by Province and Region, 1967-1975

	<u>Average 1967-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		-	thousand pounds	-		
Atlantic Region	107	279	316	457	545	764
Nfld.	1	14	2	15	*	-
P.E.I.	2	1	3	7	2	6
N.S.	57	119	167	200	264	288
N.B.	47	145	144	235	279	470
Central Region	8,837	10,213	12,486	14,028	16,362	19,785
Que.	2,958	4,088	5,140	5,499	6,248	7,636
Ont.	5,879	6,125	7,346	8,529	10,114	12,149
Western Region	3,986	6,867	9,248	10,290	12,279	13,823
Man.	387	747	959	1,023	1,302	1,567
Sask.	73	200	247	332	406	430
Alta.	594	1,234	1,452	1,669	1,981	2,750
B.C.	2,932	4,686	6,590	7,266	8,590	9,076
Canada	12,929	17,358	22,050	24,775	29,187	34,372

Source: Statistics Canada.

Appendix Table 8

Broccoli: Imports by Month, 1967-1975

<u>Month</u>	<u>Average</u> <u>1967-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	1,596	12.3	2,712	10.6	1,982	3,126	3,077	3,654
Feb.	1,601	12.4	2,698	10.6	2,280	2,320	3,208	3,850
Mar.	1,577	12.2	2,706	10.6	2,494	2,794	2,643	3,666
Apr.	1,694	13.1	2,607	10.2	1,970	2,602	2,495	3,921
May	1,444	11.2	3,014	11.8	2,799	2,774	3,798	3,614
June	1,083	8.4	2,417	9.5	2,006	2,447	2,466	3,253
July	532	4.1	1,499	5.9	1,114	1,126	1,741	2,450
Aug.	140	1.1	820	3.2	839	578	1,147	1,132
Sept.	126	1.0	637	2.5	553	557	874	826
Oct.	407	3.1	1,571	6.1	1,550	1,880	1,943	1,820
Nov.	1,054	8.2	2,307	9.0	2,547	2,087	2,583	3,058
Dec.	1,677	13.0	2,562	10.0	1,913	2,483	3,214	3,143
Total	12,929	100.0	25,548	100.0	22,050	24,775	29,187	34,372

Source: Statistics Canada.

Appendix Table 9

Broccoli: Percentage Distribution of Imports from United States,
by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Texas</u>	<u>Arizona</u>	<u>Others</u>	<u>Total</u>
- per cent -					
<u>1972</u>					
Atlantic Region	87.1	11.0	1.9	-	100.0
Central Region	92.5	0.3	5.2	2.0	100.0
Western Region	99.5	0.5	-	-	100.0
Canada	94.7	0.5	3.5	1.3	100.0
<u>1973</u>					
Atlantic Region	92.3	3.5	1.2	3.0	100.0
Central Region	95.7	1.3	1.6	1.4	100.0
Western Region	100.0	-	-	-	100.0
Canada	96.9	0.9	1.1	1.1	100.0
<u>1974</u>					
Atlantic Region	78.8	5.5	-	15.7	100.0
Central Region	97.7	0.5	0.7	1.0	100.0
Western Region	99.7	0.3	-	-	100.0
Canada	98.1	0.5	0.5	0.9	100.0

Source: Agriculture Canada.

Broccoli: Weekly Wholesale to Retail Prices at Halifax, Montreal and Toronto, 1974

Week Ending	Halifax		Montreal		Toronto		
	Calif.	Fla.	Calif.	Que.	Ariz.	Calif.	Ont.
	ctn., bchd. 14's 22 lbs.	ctn., bchd. 14's 22 lbs.	ctn., bchd. 14's 22 lbs.	ctn., doz. 12 lbs.	ctn., bchd. 14's 22 lbs.	ctn., bchd. 14's 22 lbs.	ctn., bchd. 12's 19 lbs.
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Appendix Table 10a (concl.)

Week Ending	Halifax		Montreal		Toronto		
	Calif.	Fla.	Calif.	Que.	Ariz.	Calif.	Ont.
	ctn., bchd. 14's 22 lbs.		ctn., bchd. 14's 22 lbs.	ctn., doz. 12 lbs.	ctn., bchd. 14's 22 lbs.	ctn., bchd. 14's 22 lbs.	ctn., bchd. 12's 19 lbs.
				- cents per pound -			
July 5	37.5		30.1	34.4		30.1	
12	35.2		30.1	32.3		29.5	
19	34.5		30.1	31.3		28.4	
26	34.5			33.3		30.7	
Aug. 2	34.5		26.7	34.4		30.7	
9	34.5			32.3			
16	35.2			32.3		29.0	
23	39.1			34.4		26.1	
30	39.1		23.3	26.1		23.3	
Sept. 6	39.1		23.3	26.1		25.6	
13	37.3		26.7	28.2		30.1 (a)	
20	38.6		29.0	30.3		33.5 (a)	
27	38.6		28.4	30.3		30.1	
Oct. 4	38.6		27.3			27.9	25.0
11	38.6		27.3			27.9	23.1
18	36.4		27.9			24.5	23.1
25	36.4		29.0			26.7	
Nov. 1	34.1		28.4			27.9	
8	35.2		27.9			25.6	
15	33.6		28.4			29.0	
22	37.3		30.1			29.0	
29	36.4		28.4			26.7	
Dec. 6	35.0		27.3			26.1	
13	31.8		26.1			26.7	
20	33.0		27.2			27.9	
27	33.0		26.7			27.9	

(a) Cartons of bunched 18's at 22 pounds.

Source: Agriculture Canada.

**Broccoli: Weekly Wholesale to Retail Prices at Winnipeg
and Vancouver, 1974**

		Winnipeg		Vancouver	
		Calif.	Texas	Calif.	B.C.
Week		ctn., bchd.	ctn., bchd.	ctn.	ctn.
Ending		14's 22 lbs.	14's 22 lbs.	22 lb.	22 lbs.
		- cents per pound		-	
Jan.	4	31.3		30.7	
	11	30.7		32.2	
	18	31.3		32.2	
	25	33.9		31.8	
Feb.	1	31.6		31.8	
	8	30.1		31.3	
	15	31.3		33.5	
	22	31.3		34.7	
Mar.	1	35.8		33.2	
	8	31.0		32.9	
	15	27.6		28.4	
	22	27.3		29.2	
	29	27.3		29.0	
Apr.	5	27.9		29.2	
	12	29.0		32.4	
	19	31.5		35.8	
	26	32.0		32.7	
May	3	30.1		30.9	
	10	30.0		30.1	
	17	28.8		29.8	
	24	28.2		29.8	
	31	28.2		30.5	
June	7	27.9		32.0	
	14	29.5		32.0	
	21	29.5		32.0	
	28	30.1		32.0	
July	5	30.9		33.3	
	12	30.7		33.3	
	19	30.7		33.3	
	26	31.1		33.5	
Aug.	2	31.3		33.9	
	9	31.3		32.4	
	16	31.3		32.4	
	23	31.3		35.9	28.4
	30	31.0			29.5
Sept.	6	30.9			28.6
	13	30.9			28.1
	20	30.1			28.1
	27	31.6			26.1
Oct.	4	31.6			26.1
	11	29.8			26.4
	18	30.1			25.8
	25	30.1			26.1
Nov.	1	30.1			26.1
	8	29.3		33.8 (a)	26.1
	15	32.6		33.8 (a)	26.1
	22	33.6		34.1 (a)	28.2
	29	33.1		30.5 (a)	
Dec.	6	31.3	31.3	33.2 (a)	
	13	31.3	31.3	32.2 (a)	
	20	29.9	29.9	32.2 (a)	
	27	29.9	29.9	32.2 (a)	

(a) Cartons 14's bunched at 22 pounds.

Source: Agriculture Canada.

Appendix Table 11a

Imported United States Broccoli: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Toronto: Selected Data by Month, 1972-1974

Month of Shipment	1972					1973					1974					
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	
								- cents per pound								
January	Calif.	18.8	4.9	-	23.7	Calif.	18.3	4.7	-	23.0	-	-	-	-	-	-
	"	-	-	-	-	"	16.8	4.8	-	21.6	-	-	-	-	-	-
	-	-	-	-	-	"	19.0	5.5	-	24.5	-	-	-	-	-	-
March	-	-	-	-	-	Calif.	17.4	5.2	-	22.6	Calif.	17.9	5.0	-	-	22.9
May	Calif.	12.1	4.7	-	16.8	Calif.	15.6	5.2	-	20.8	-	-	-	-	-	-
	"	-	-	-	-	"	17.2	5.5	-	22.7	-	-	-	-	-	-
June	-	-	-	-	-	Calif.	16.8	4.4	-	21.2	Calif.	19.2	4.8	-	-	24.0
	-	-	-	-	-	-	-	-	-	-	"	20.3	5.0	-	-	25.3
August	Calif.	13.9	5.9	-	19.8	-	-	-	-	-	-	-	-	-	-	-
	"	15.2	4.8	-	20.0	-	-	-	-	-	-	-	-	-	-	-
September	-	-	-	-	-	Calif.	13.9	5.1	1.4	20.4	-	-	-	-	-	-
October	Calif.	12.5	5.3	1.2	19.0	Calif.	15.7	4.8	1.5	22.0	Calif.	18.9	5.9	1.9	1.9	26.7
	"	12.7	5.1	1.2	19.0	"	15.9	5.1	1.5	22.5	"	17.5	5.7	1.7	1.7	24.9
November	Calif.	15.7	4.8	1.5	22.0	Calif.	15.9	5.3	-	21.2	Calif.	17.5	5.5	1.8	1.8	24.8
	"	16.0	4.8	1.5	22.3	"	15.9	5.0	-	20.9	"	22.1	5.5	2.2	2.2	29.8
	"	18.1	5.1	1.8	25.0	"	17.0	4.8	-	21.8	-	-	-	-	-	-
	"	16.7	5.4	1.6	23.7	"	18.3	4.8	-	23.1	-	-	-	-	-	-

Source: Tariff Board Survey.

Imported United States Broccoli: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Montreal, Winnipeg and Vancouver, Selected Data by Month, 1974

Month of Shipment	Montreal					Winnipeg					Vancouver				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
- cents per pound -															
January	Calif.	17.1	5.2	-	22.3	Calif.	19.3	6.2	-	25.5	Calif.	15.9	4.0	-	19.9
	"	16.6	5.4	-	22.0	-	-	-	-	-	"	18.2	4.3	-	22.5
	-	-	-	-	-	-	-	-	-	-	"	20.5	4.1	-	24.6
	-	-	-	-	-	-	-	-	-	-	"	20.5	4.5	-	25.0
February	-	-	-	-	-	-	-	-	-	-	Calif.	18.2	3.8	-	22.0
	-	-	-	-	-	-	-	-	-	-	"	19.8	4.0	-	23.8
	-	-	-	-	-	-	-	-	-	-	"	22.0	4.0	-	26.0
	-	-	-	-	-	-	-	-	-	-	"	23.9	4.0	-	27.9
March	-	-	-	-	-	Calif.	18.2	6.2	-	24.4	Calif.	17.0	4.0	-	21.0
	-	-	-	-	-	-	-	-	-	-	"	15.9	4.0	-	19.9
	-	-	-	-	-	-	-	-	-	-	"	15.5	4.5	-	20.0
April	-	-	-	-	-	-	-	-	-	-	Calif.	21.6	4.0	-	25.6
	-	-	-	-	-	-	-	-	-	-	"	18.2	4.0	-	22.2
	-	-	-	-	-	-	-	-	-	-	Ariz.	20.5	4.1	-	24.6
	-	-	-	-	-	-	-	-	-	-	Calif.	19.5	4.1	-	23.6
May	-	-	-	-	-	-	-	-	-	-	"	18.6	4.2	-	22.8
	-	-	-	-	-	-	-	-	-	-	"	19.3	5.5	-	24.8
	-	-	-	-	-	-	-	-	-	-	"	17.5	4.0	-	21.5
	-	-	-	-	-	-	-	-	-	-	"	18.2	4.0	-	22.2
	-	-	-	-	-	-	-	-	-	-	"	18.9	4.0	-	22.9
June	-	-	-	-	-	-	-	-	-	-	Calif.	19.3	4.5	-	23.8
	-	-	-	-	-	-	-	-	-	-	"	20.5	4.5	-	25.0
	-	-	-	-	-	-	-	-	-	-	"	20.9	4.5	-	25.4
	-	-	-	-	-	-	-	-	-	-	Wash.	26.1	2.2	-	28.3

Appendix Table 11b (concl.)

Month of Shipment	Montreal				Winnipeg				Vancouver							
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	
								- cents per pound								
July	-	-	-	-	-	Calif.	20.5	6.8	-	27.3	Calif.	20.5	4.5	-	25.0	
	-	-	-	-	-	"	20.5	7.1	-	27.6	"	20.5	3.8	-	24.3	
	-	-	-	-	-	"	19.3	6.7	-	26.0	"	19.8	4.6	-	24.4	
	-	-	-	-	-	"	19.3	7.5	-	26.8	"	19.3	5.1	-	24.4	
August	-	-	-	-	-	Calif.	20.5	7.0	-	27.5	Calif.	20.5	4.5	-	25.0	
	-	-	-	-	-	"	20.9	5.9	-	26.8	-	-	-	-	-	
	-	-	-	-	-	"	20.5	6.8	-	27.3	-	-	-	-	-	
	-	-	-	-	-	"	19.3	6.7	-	26.0	-	-	-	-	-	
September	Calif.	17.2	5.6	1.7	24.5	Calif.	18.2	6.6	1.8	26.6	Calif.	19.3	4.6	2.0	25.9	
	"	16.9	5.9	1.7	24.5	-	-	-	-	-	"	18.2	4.6	1.8	24.6	
October	Calif.	17.4	6.0	1.7	25.1	Calif.	18.6	6.2	1.9	26.7	Calif.	17.0	4.3	1.7	23.0	
	-	-	-	-	-	"	18.6	5.8	1.9	26.3	-	-	-	-	-	
	-	-	-	-	-	"	18.6	5.9	1.9	26.4	-	-	-	-	-	
November	Calif.	16.9	5.9	1.7	24.2	Calif.	18.6	6.5	1.9	27.0	Calif.	18.2	4.6	1.8	24.6	
	"	17.6	6.0	1.8	25.4	"	20.9	6.0	2.1	29.0	-	-	-	-	-	
	-	-	-	-	-	"	19.3	5.5	2.0	26.8	-	-	-	-	-	
December	Calif.	14.5	5.6	1.4	21.4	Calif.	13.6	5.1	1.4	20.1	Calif.	15.9	2.8	1.6	20.3	
	"	16.8	6.0	-	22.8	"	17.5	4.5	1.8	23.8	"	17.0	2.7	1.7	21.4	
	"	17.3	6.3	-	22.6	"	17.0	6.6	-	23.6	"	17.0	4.4	-	21.4	
	-	-	-	-	-	-	-	-	-	-	"	18.2	4.5	-	22.7	

Source: Tariff Board Survey.

Broccoli^(a): Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by
States, 1966-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
			-	Acreage	-		
California			36,100	40,800	49,000	45,600	42,875
Texas			2,000	2,200	1,500	1,000	1,675
Oregon			3,400	3,300	2,600	2,100	2,850
Arizona			<u>1,020</u>	<u>1,000</u>	<u>840</u>	<u>700</u>	<u>890</u>
U.S.	<u>39,064</u>	<u>40,590</u>	<u>42,520</u>	<u>47,300</u>	<u>53,940</u>	<u>49,400</u>	<u>48,290</u>
			-	Production, '000 lb.	-		
California			280,700	324,000	320,000	369,300	323,500
Texas			7,900	10,400	5,800	3,900	7,000
Oregon			21,100	24,400	20,200	16,300	20,500
Arizona			<u>6,200</u>	<u>5,600</u>	<u>4,200</u>	<u>3,800</u>	<u>4,950</u>
U.S.	<u>228,160</u>	<u>283,040</u>	<u>315,900</u>	<u>364,400</u>	<u>350,200</u>	<u>393,300</u>	<u>355,950</u>
			-	Average Yield, lb.	-		
California			7,776	7,941	6,531	8,099	7,545
Texas			3,950	4,727	3,867	3,900	4,179
Oregon			6,206	7,394	7,769	7,762	7,193
Arizona			<u>6,078</u>	<u>5,600</u>	<u>5,000</u>	<u>5,429</u>	<u>5,562</u>
U.S.	<u>5,841</u>	<u>6,973</u>	<u>7,429</u>	<u>7,704</u>	<u>6,492</u>	<u>7,962</u>	<u>7,371</u>
			-	Farm Value, \$'000	-		
California			31,355	35,088	39,013	52,247	39,426
Texas			1,016	1,130	694	522	841
Oregon			2,031	2,344	2,008	2,431	2,204
Arizona			<u>1,015</u>	<u>889</u>	<u>761</u>	<u>712</u>	<u>844</u>
U.S.	<u>18,406</u>	<u>26,235</u>	<u>35,417</u>	<u>39,451</u>	<u>42,476</u>	<u>55,912</u>	<u>43,314</u>
			-	Farm Value, ¢ per lb.	-		
California			11.2	10.8	12.2	14.1	12.2
Texas			12.9	10.9	12.0	13.4	12.0
Oregon			9.6	9.6	9.9	14.9	10.8
Arizona			<u>16.4</u>	<u>15.9</u>	<u>18.1</u>	<u>18.7</u>	<u>17.1</u>
U.S.	<u>8.1</u>	<u>9.3</u>	<u>11.2</u>	<u>10.8</u>	<u>12.1</u>	<u>14.2</u>	<u>12.2</u>

(a) Fresh Market and Processing.

Note: California has 4 crops per year; all other states have 2 crops per year.

Source: U.S. Department of Agriculture.

Broccoli: Dates of Application and Removal of the Seasonal Duty,
by Tariff Region, 1966-1975

Year (a)	Maritime Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	-	-	-	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	Aug. 8	Nov. 21	105
1970	-	-	-	-	-	-	Aug. 14	Dec. 3	111
1971	-	-	-	-	-	-	Sept. 10	Dec. 29	110
1972	-	-	-	Aug. 25	Dec. 15	112	Aug. 10	Dec. 1	112
1973	-	-	-	Aug. 15	Nov. 2	79	Aug. 17	Dec. 7	112
1974	-	-	-	Aug. 22	Dec. 12	112	Sept. 13	Nov. 29	77
1975	-	-	-	Aug. 22	Oct. 29	68	Aug. 19	Nov. 13	86

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Appendix Table 13

- (a) Government fiscal year commencing April 1st; ending March 31st of following year.
(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.
(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Broccoli: Dutiable and Non-Dutiable Imports, 1968-1974

Year	Imports				Price f.o.b. Dutiable ¢/lb.
	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.	
1968	12,482	11,591	92.9	891	12.5
1969	13,524	12,721	94.1	803	13.0
1970	15,979	14,841	92.9	1,138	10.7
Average 1968-70	13,995	13,051	93.3	944	11.9
1971	17,358	15,882	91.5	1,477	12.1
1972	22,050	15,783	71.6	6,267	10.9
1973	24,775	20,552	83.0	4,223	12.6
1974	29,187	22,478	77.0	6,709	13.2
1975	34,372	30,173	87.8	4,200	14.8
Average 1971-75	25,548	20,973	82.1	4,575	12.7

Source: Statistics Canada.

BRUSSELS SPROUTSTable of Contents

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BRUSSELS SPROUTS

Brussels sprouts (Brassica oleracea var. gemmifera) is a botanical variety of cabbage. The plant is biennial, producing its "sprouts" in the first year and bearing seeds the second. Brussels sprouts originated in Europe and were possibly grown in Belgium as early as 1200 and are known to have been cultivated in North America since the beginning of the nineteenth century.

The plant is a tall-stemmed cabbage in which many tiny heads form along the stem at the bases of the leaves instead of one large head at the top of a short stem. The small heads are harvested when they reach the marketable size of 1 to 2 inches in diameter.

Brussels sprouts need a long, cool growing season. The plant can withstand frost and is harmed by hot weather. Best quality sprouts are produced during a fall with sunny days and cool nights. It is a relatively minor crop in Canada with a per capita consumption of less than 1 pound although total consumption has increased considerably from the latter 1960s.

GROWING AND HARVESTING

Brussels sprouts can be grown commercially in most vegetable producing areas of Canada, preferably in muck or deep, loamy, soils. Sandy soils are also excellent if an abundance of organic matter is present. Good drainage is imperative. This plant is started in seed-beds and is later transplanted.

Harvesting is usually done by hand some three to three and a half months after setting out the plants. When picked by hand the plants are gone over two or three times. For a once-over (single picking) operation, the plants are topped when the sprouts at the bottom of the plant are $\frac{1}{2}$ inch to $\frac{3}{4}$ inch in diameter. This permits the development of a full stem of sprouts four to six weeks later when the stocks can be harvested mechanically. The stocks are subsequently fed manually into a machine that strips off the sprouts.

For growing sprouts, considerable labour is required in such operations as transplanting, topping, leaf removal, picking, and - in the case of fresh market sprouts - cleaning, trimming and packing.

Brussels sprouts cannot be stored fresh for a long period, at the most three to five weeks at 0°C. Increases in temperature decrease the storage life considerably.

On the fresh retail market, Brussels sprouts are usually sold by pound weight in over-wrap containers or by quantity in quart containers. Processing sprouts are normally sold directly to the processor. Processing sprouts are primarily frozen, although small volumes are also canned.

ACREAGE, PRODUCTION AND FARM VALUE

With the exception of British Columbia, acreage and production figures for Brussels sprouts do not appear to be tabulated in Canada although testimony at the public sittings suggests that this vegetable is grown across the country. However, the major producing areas are probably British Columbia, which had 476 acres in production in 1973, Ontario, New Brunswick and Prince Edward Island.

Shown below is the Board's estimate of total Canadian production from 1966 to 1974:

Table 1: Brussels Sprouts: Estimated Canadian Production,
1966-1974

<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>
- '000 lb. -					
7,120	7,800	8,900	9,800	8,700	8,800

Source: Derived from Agriculture Canada and Statistics Canada data.

As indicated above, estimated Canadian production has increased by some 1.68 million pounds or by 23 per cent between the periods 1966-70 and 1971-74. In British Columbia, the rate of growth was 51 per cent, from 1.6 million to 2.4 million pounds between the slightly different periods of 1968-70 and 1971-73 (see Appendix Table 1).

Per acre yields in British Columbia during the period 1971-73 averaged 6,290 pounds. For the same period, estimated Canadian production was approximately 8.8 million pounds; assuming that the B.C. yield is at least indicative of the national average yield, 8.8 million pounds translates into a total of 1,399 acres of Brussels sprouts in Canada of which an average of 28 per cent or 389 acres were located in British Columbia.

British Columbia is the only area reporting the farm value of the Brussels sprouts crop. This averaged \$438,000 in 1971-73 or 17.9 cents per pound. This average farm-gate price across Canada would have resulted in an average farm value for total domestic production of some \$1.6 million. The average return for the fresh market product was 24 cents, considerably above the 16 cents per pound realized for processing sprouts.

Table 2: Brussels Sprouts: Supply and Disposition, Canada, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1966-70 to 1971-74</u>
<u>Total Production</u> (a)				- '000 lb. -			
	7,120	7,800	8,900	9,800	8,700	8,800	+ 23.6
<u>Total Imports</u>							
Fresh	4,943	5,511	6,448	7,502	6,407	6,467	+ 30.8
Processed (frozen)	4,779	4,645	4,393	4,448	4,178	4,416	- 7.6
	164	866	2,055	3,054	2,229	2,051	+1,151.6
<u>Total Supply Available</u>	12,063	13,311	15,348	17,302	15,107	15,267	+ 26.6
<u>Total Exports</u>	-	-	-	-	-	-	-
<u>Total Domestic Disappearance</u>	12,063	13,311	15,348	17,302	15,107	15,267	+ 26.6
Consumed in processed form	3,846	4,678	6,591	6,867	6,806	6,236	+ 62.1
From domestic production	3,682	3,812	4,536	3,813	4,577	4,185	+ 13.7
Imported processed	164	866	2,055	3,054	2,229	2,051	+1,151.6
Fresh market consumption	8,217	8,633	8,757	10,435	8,301	9,031	+ 9.9
From domestic production	3,438	3,988	4,364	5,987	4,123	4,615	+ 34.2
Imported	4,799	4,645	4,393	4,448	4,178	4,416	- 7.6

(a) Tariff Board estimate.

Source: Derived from Statistics Canada and Agriculture Canada data.

SUPPLY AND DISPOSITION

All Brussels sprouts produced in Canada are assumed to be consumed domestically as no data are available regarding exports in fresh or processed form. Supply and disposition estimates are presented in Table 2 while certain supply and disposition ratios are given in Appendix Table 2.

Total domestic consumption of Brussels sprouts increased some 27 per cent between the periods 1966-70 and 1971-74, from an estimated 12.0 million pounds to 15.3 million pounds; total domestic production increased by 24 per cent, from 7.1 million pounds to 8.8 million pounds. The major portion of the increased production was consumed on the fresh market where consumption from Canadian production increased by 34 per cent. Consumption of domestic sprouts in processed form increased by 14 per cent.

The most noticeable change in consumption patterns was in the quantity consumed in processed form. Total processed consumption from both domestic and imported sources showed an advance of 62 per cent; imports in processed form expressed in the fresh equivalent jumped some elevenfold to 2 million pounds in the 1971-74 period from a very low base of 164,000 pounds in 1966-70. The increase in processed imports was in contrast to an 8 per cent drop in fresh imports.

Imports for fresh consumption during the domestic market season are estimated to have declined from almost 34 per cent of total fresh consumption to 18 per cent between the periods 1966-70 and 1971-74 (see Table 3). The smaller share of the on-season fresh market taken by imports results from a 40 per cent decline in imports and a 36 per cent increase in fresh consumption from domestic output in the August to December period. Rising fresh market consumption during the January to June period is almost totally supplied by imports. In terms of total domestic consumption, both fresh and processed, the share of the market accounted for by imports has at 42 per cent during 1971-74 remained almost constant.

Processor acquirements of fresh Brussels sprouts have been met by domestic growers, with the exception of 1973. In that year, some fresh sprouts were imported for processing.

Table 3: Brussels Sprouts: Fresh Market Production, Fresh Imports and Fresh Consumption, On-Season and Off-Season, 1966-70 and 1971-74

	Average 1966-70	Average 1971-74
	- '000 lb. -	
<u>Production</u>		
On-season (a)	3,373	4,605
Off-season (b)	65	10
Total	3,438	4,615
<u>Imports</u>		
On-season (a)	1,709	1,028
Off-season (b)	3,070	3,388
Total	4,779	4,416
<u>Consumption</u>		
On-season (a)	5,082	5,633
Off-season (b)	3,135	3,398
Total	8,217	9,031
<u>Imports as % of Consumption</u>		
On-season (a)	33.6	18.2
Off-season (b)	97.9	99.7
Total	58.2	48.9

(a) August-December growing season.

(b) January-July.

Source: Derived from Statistics Canada and Agriculture Canada data.

IMPORTS

Imports of fresh Brussels sprouts originate in the United States and Mexico, with the United States customarily accounting for two-thirds to four-fifths of the total (see Appendix Table 5). Almost all United States shipments originate in California (see Appendix Table 8). In 1974, the central region of Canada accounted for 53 per cent of fresh imports, the western region for 45 per cent and the Atlantic region for the small remainder (see Appendix Table 6).

PRICES

The farm value of Brussels sprouts is available for British Columbia only (see Appendix Table 1, covering the years 1968 to 1973). It will be noted that the farm value of sprouts for the fresh market rose from an average of 21.2 cents in the 1968-70 period to 24 cents in 1971-73, or by about 13 per cent. For the same two periods, the

price for the processing market moved ahead from an average of 13.9 cents to 16.0 cents or by 15 per cent.

Wholesale-to-retail price data in 1974 for imported and domestic Brussels sprouts in various forms and sizes of packs in certain major Canadian markets are given in Appendix Tables 9a and 9b. These data show that during the Canadian growing season imports of fresh Brussels sprouts are limited to very small volumes which are insufficient to establish weekly price quotations. The data were also inadequate to make a comparison between the wholesale-to-retail price of domestic and imported produce. Only in Winnipeg was such a comparison possible, and in this case the imported sprouts were priced about the same or slightly higher than the domestic product.

Table 4: Brussels Sprouts: Total Landed Cost of Imports
in Toronto, Winnipeg, and
Vancouver, 1972-1974

		<u>Cost f.o.b.</u>	<u>Freight, Brokerage, etc.</u>	<u>Duty</u>	<u>Total Landed Cost</u>
		- range in ¢ per lb. -			
Toronto	1972	16.6-20.6	4.2-4.3	1.6-2.0	22.4-26.9
	1973	22.6	4.2-4.4	Free-3.8	26.8-30.8
	1974	-	-	-	-
Winnipeg	1974	25.0-29.4	3.3-5.7	Free-4.6	28.4-38.4
Vancouver	1974	13.6-25.0	2.2-2.5	Free-2.5	15.8-29.9

Source: Appendix Tables 10a and 10b.

Information collected by the Board with respect to the landed cost of imported Brussels sprouts of California origin is summarized in Table 4; the detailed data on which this table is based can be found in Appendix Tables 10a and 10b. In general, the cost of freight, brokerage, etc., is about equal to the cost of the duty; accordingly, freight, brokerage, etc., afford a less pronounced degree of added protection than is the case with several other vegetables. It should be noted that the range in the cost of the duty is the result of the dual rate structure, i.e., 3 cents per pound specific duty plus an additional 5 per cent when imported in packages weighing 5 pounds or less, or 10 per cent ad valorem (no additional duty for packages) whenever the specific duty is not in effect.

CANADA-UNITED STATES COMPARISONS

U.S. output of Brussels sprouts is confined almost entirely to California; commercial production in other states is negligible. In 1973, California growers produced 64.1 million pounds of sprouts (see Appendix Table 11) as against total estimated Canadian output of 9.8 million pounds. The California yield averaged 11,508 pounds per acre compared to 5,889 pounds in British Columbia.

Production cost estimates for Brussels sprouts were prepared with reference to Ontario, British Columbia and California. As shown in Table 5, costs per acre were judged to be higher in California in 1973 than in Ontario and British Columbia in 1974. However, when expressed on a cost per pound basis, the higher California yield per acre resulted in costs which were not significantly different between the three areas. By assuming a 15 per cent increase in production costs in California from 1973 to 1974, the state's per pound cost would have been 12.41 cents, compared with 12.36 cents in Ontario and 13.06 cents in British Columbia. It should be noted, however, that the sample used to derive costs may be atypical; for Ontario in fact average costs for all growers in that province are probably considerably higher.

Table 5: Brussels Sprouts: Production Costs in Ontario, British Columbia and United States Growing Areas

	<u>Ontario</u>	<u>British Columbia</u>	<u>California</u>
	1974	1974	1973
Yield, lb.	8,000	6,000	10,000
	- \$ per acre -		
Labour - hourly	249.00	133.68	210.82
- contract	160.00	62.39	300.00
Total	409.00	196.07	510.82
Land charges	100.00	64.71	85.00
Other	479.75	522.90	483.13
Total	579.75	587.61	568.13
Total Costs ^(a)	988.75	783.68	1,078.95
Total Costs, ¢/lb.	12.4	13.1	10.8

(a) Does not include cost of management allowance as indicated by British Columbia and California studies.

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P.Ag.

One factor working against expanded production of this crop in Canada is its high labour cost. A greater degree of mechanization in the seeding and harvesting operations could contribute to reducing the cost of producing the total crop; there are at present too many small growers and too few large growers in Canada. The larger acreages and mechanization will, however, reduce costs proportionately less with respect to the fresh market product, because the latter costs more to produce as a result of packaging. This explains why Canadian growers have performed better in the fresh market than in supplying processing sprouts. A few Canadian growers

are reported to be using mechanical harvesters and are operating the larger holdings necessary to justify the purchase of such equipment. At the same time, testimony given at the public sittings would appear to indicate that mechanization is more prevalent in the United States.

TARIFF CONSIDERATIONS

Fresh Brussels sprouts are classified under tariff item 8705-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Brussels sprouts per pound	Free	3 cts. or 10 p.c. or Free	3 cts. or 10 p.c. or Free

The Free rate shall apply during the months of January, February, March, April, May and June.

During the remaining months in any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 16 weeks, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

When subject to specific rates of duty and imported in packages five pounds or less, each, see additional duty following item 8731-1.

The present rates of duty under tariff item 8705-1 have been in effect since February 20, 1974. Rates of duty applicable to fresh imports of Brussels sprouts in recent years prior to 1974 are as follows:

	<u>1959-67</u>	<u>1968-74</u>
B.P.	Free	Free
M.F.N.	3 cts. (16 weeks) 10 p.c.	3 cts.* 10 p.c.** Free
Gen.	3 cts. (16 weeks) 10 p.c.	3 cts.* 10 p.c.** Free

* April 10, 1959, in packages weighing five pounds or less, subject to additional duty 5 p.c.

** 10 p.c. rate was suspended and free entry substituted from February 20, 1973 to February 19, 1974.

Tariff item 8705-1 is bound under GATT.

When imported from Canada into the United States, Brussels sprouts are entered under item 137.85 which pertains to "other" vegetables, fresh chilled, or frozen, at the rate of 25 per cent ad valorem.

The Canadian Horticultural Council proposed an increase in the rates of duty on Brussels sprouts to 5 cents per pound but not less than 20 per cent ad valorem and, further, that the period during which the specific duty may be applied be increased from 16 weeks to 20 weeks. The latter proposal, while increasing the maximum period of application of the specific duty, would, in effect, reduce the total dutiable period from 26 weeks to 20 weeks by removing the 10 per cent ad valorem duty, which, at present, applies from July to December whenever the specific duty is not in effect.

According to figures compiled by the Horticultural Council, the increase in the f.o.b. import values of Brussels sprouts has resulted in a decline in the ad valorem equivalent of the specific duty from a range of 37 to 27 per cent in 1959 to 16 per cent in 1973. As will be seen in Appendix Table 13, the ad valorem equivalent remained quite constant, at approximately 20 per cent, from 1966 to 1972, but has declined to 13.5 per cent in 1975.

The specific duty has not been invoked on imports into the Atlantic region since 1966 (see Appendix Table 12). In the central and western regions, the specific duty has been more regularly applied, although never for the entire 16 weeks (or 112 days) permitted under tariff item 8705-1 with the one exception of 1973 in the central region; and in this case probably only because the 10 per cent ad valorem duty, which would have been in effect instead of the specific duty, had been temporarily suspended. Data contained in Appendix Table 3 suggest, however, that the marketing season does approximate 20 weeks.

The Canadian Food Processors Association proposed a separate tariff item for Brussels sprouts when imported for processing - "Brussels sprouts for manufacture" - with a seasonal duty of 10 per cent ad valorem applicable for a maximum of 16 weeks.

The proposal of the Horticultural Council to raise the specific duty from 3 cents to 5 cents per pound for fresh market sprouts and extending the period of application of the specific duty from 16 to 20 weeks would, if implemented, cost the consumer as much as \$89 thousand more on the quantity consumed in fresh form. This amount is predicated on the quantity produced and imported for fresh market consumption during the 20 weeks represented by the August 1 to mid December segment of the domestic marketing season, with the usual assumptions, during 1974. The cost of the additional duty to Canadian consumers would be equivalent to about 1½ cents per year for a family of four. The benefit to growers, at a yield of 7,000 pounds, would be approximately \$140-\$150 per acre.

The Board gave consideration to introducing a combination of a seasonal duty with a minimum ad valorem rate as opposed to the present seasonal specific duty and an off-season ad valorem rate. The combined rate would be consistent with the rate structure recommended for other fresh vegetables and would set a floor below which the degree of protection could not fall due to the erosion through inflation that can result with a purely specific duty.

The specific seasonal duty proposed by the Horticultural Council of 5 cents per pound would have a 25 per cent ad valorem equivalence based on 1974 unit import values, a level well above the level of protection afforded by the existing specific duty of 3 cents per pound. In fact it would more than compensate for the erosion experienced during the seventies. A minimum ad valorem seasonal duty of 12.5 per cent would be appropriate if the seasonal specific duty were to be maintained at 3 cents per pound; the minimum rate would be applicable when f.o.b. unit import prices reach 24 cents per pound.

With respect to the proposal of the Canadian Food Processors Association for a separate tariff item for Brussels sprouts when imported for processing, in most years there appear to have been no such imports. However, a 10 p.c. rate of duty, as proposed by the Association, would reduce the level of protection on this vegetable when used for processing.

CONCLUSIONS

The estimated total production of Brussels sprouts in Canada rose by an average of 24 per cent between the periods 1966-70 and 1971-74, from 7.1 million pounds to 8.8 million pounds. At the same time total domestic disappearance rose by 27 per cent from 12 million pounds to 15.3 million pounds.

Total imports, including processed imports in fresh equivalent weight, increased more rapidly than domestic consumption, and the import share of the domestic market thus rose. This growth in import penetration was, however, confined entirely to processed Brussels sprouts. Fresh market imports actually declined, and Canadian growers usually supply all of the requirements of domestic processors for processing sprouts.

Overall costs of production are probably lower on the larger, more mechanized, farms in the United States. The Board concludes, however, that the protection provided Canadian growers by transportation costs on imports and by the existing specific duty of 3 cents per pound is adequate. Therefore, the Board recommends a seasonal specific duty of 3 cents per pound, with a minimum ad valorem rate of 12½ per cent, under both the Most-Favoured-Nation and General Tariff for fresh Brussels sprouts.

With respect to the period of application of the seasonal duty, the Board concludes that the maximum period be extended to 20 weeks, to be applied on a regional basis. The Board is of the view that there should not be a duty when imports are almost the exclusive source of supply, and therefore, recommends that the 10 p.c. rate be eliminated under both the Most-Favoured-Nation and General Tariff.

With respect to a separate item for sprouts imported for processing, the Board concludes that such action is at present unwarranted in view of the infrequency of such imports.

RECOMMENDATIONS

The Board recommends that the present tariff item 8705-1 be deleted and that the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Brussels sprouts .. per pound	Free	3 cts. but not less than 12½ p.c., or Free	3 cts. but not less than 12½ p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 20 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

Brussels Sprouts: Acreage, Production, Average Yield, Farm Value and Farm Value per Pound,
British Columbia, 1968-1973

	Fresh			Processed (Manufactured)				Total		
	Acre- age	Produc- tion '000 lb.	Farm Value		Acre- age	Produc- tion '000 lb.	Farm Value		Acre- age	Produc- tion '000 lb.
			¢/lb.	\$			¢/lb.	\$ (a)		
1968	11	88	21.9	19,272	274	1,393	12.0	167,160	285	1,481
1969	14	89	22.9	20,358	252	1,655	14.2	234,569	266	1,744
1970	16	130	19.4	25,164	208	1,502	15.3	229,806	224	1,632
Average 1968-70	14	102	21.2	21,598	245	1,517	13.9	210,512	258	1,619
1971	83	512	22.1	113,263	201	1,243	15.6	193,852	284	1,755
1972	86	523	21.6	113,170	320	2,261	15.8	357,298	406	2,784
1973	101	691	27.2	188,225	375	2,112	16.5	348,480	476	2,803
Average 1971-73	90	575	24.0	138,219	299	1,872	16.0	299,877	389	2,447

(a) Price paid on pack-out weight.

Source: B.C. Department of Agriculture.

Brussels Sprouts: Supply and Disposition Ratios, Canada, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- per cent -					
<u>Per Cent of Domestic Production:</u>						
Consumed in Processed Form	51.7	48.9	51.0	38.9	52.6	47.6
Sold to Domestic Fresh Market	48.3	51.1	49.0	61.1	47.4	52.4
Exported	-	-	-	-	-	-
<u>Total Imports as Per Cent: of Total Domestic Disappearance</u>	41.0	41.4	42.0	43.4	42.4	42.4
<u>Per Cent of Fresh Market Consumption: From Domestic Production</u>	41.8	46.2	49.8	57.4	49.7	51.1
From Imports	58.2	53.8	50.2	42.6	50.3	48.9
<u>Per Cent of Total Domestic Disappearance:</u>						
Consumed in Processed Form	31.9	35.1	42.9	39.7	45.1	40.8
Consumed in Fresh Form	68.1	64.9	57.1	60.3	54.9	59.2
<u>Production as % of Total Domestic Disappearance</u>	59.0	58.6	58.0	56.6	57.6	57.6

Source: Table 1.

Appendix Table 3

Brussels Sprouts: Estimated Monthly Distribution of Fresh Shipments^(a) to Principal Markets, 1966-1974

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
- thousand pounds -						
Jan.	-	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
May	-	-	-	-	-	-
June	-	1	-	-	2	-
July	65	9	-	-	34	-
Aug.	478	470	278	393	939	270
Sept.	863	1,247	1,206	1,043	1,364	1,374
Oct.	1,176	1,371	1,066	1,444	2,032	942
Nov.	791	1,088	1,113	1,444	983	811
Dec.	65	430	325	39	632	726
Total	3,438	4,615	3,988	4,364	5,987	4,123

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Brussels Sprouts: Estimated Monthly Distribution of Fresh Market Consumption, 1966-1974

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>			<u>Imports as % of Con- sumption</u>
	<u>Imports as % of Con- sumption</u>	<u>From Domestic Production</u>	<u>From Imports</u>	<u>Total Consumption</u>	
- per cent -		- thousand pounds -			- per cent -
Jan.	100.0	-	912	912	100.0
Feb.	100.0	-	754	754	100.0
Mar.	100.0	-	647	647	100.0
Apr.	100.0	-	478	478	100.0
May	100.0	-	414	414	100.0
June	100.0	1	174	175	99.4
July	25.3	9	9	18	50.0
Aug.	0.2	470	3	473	0.6
Sept.	5.5	1,247	63	1,310	4.8
Oct.	22.8	1,371	276	1,647	16.8
Nov.	30.5	1,088	158	1,246	12.7
Dec.	93.7	430	528	958	55.1
Total	58.2	4,615	4,416	9,031	48.9

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 5

Brussels Sprouts: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Total</u>
	- thousand pounds -		
1966	2,394	581	3,975
1967	3,729	507	4,236
1968	4,511	1,140	5,651
1969	4,007	977	4,984
1970	4,107	940	5,047
Average 1966-70	3,750	829	4,779
1971	3,187	1,458	4,645
1972	3,044	1,350	4,393
1973	3,104	1,343	4,448
1974	3,043	1,135	4,178
1975	4,388	1,190	5,579
Average 1971-75	3,353	1,295	4,649

Source: Statistics Canada

Appendix Table 6

Brussels Sprouts: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -					
Atlantic Region	62	71	60	102	68	115
Nfld.	1	25	*	2	-	-
P.E.I.	*	-	*	1	1	1
N.S.	33	15	27	58	28	51
N.B.	28	31	32	42	39	63
Central Region	2,591	2,583	2,632	2,410	2,225	3,656
Que.	465	401	586	308	235	663
Ont.	2,126	2,181	2,046	2,102	1,990	2,993
Western Region	2,125	1,992	1,701	1,935	1,886	1,808
Man.	143	151	150	131	120	219
Sask.	69	51	56	89	63	80
Alta.	395	442	309	375	468	400
B.C.	1,518	1,348	1,186	1,340	1,234	1,108
Canada	4,779	4,645	4,393	4,448	4,178	5,579

Source: Statistics Canada

Brussels Sprouts: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	1,143	23.9	928	20.0	1,092	1,062	671	988
Feb.	697	14.6	796	17.1	847	689	836	960
Mar.	515	10.8	684	14.7	572	734	638	830
Apr.	379	7.9	505	10.9	389	508	529	612
May	228	4.8	437	9.4	318	519	402	526
June	87	1.8	170	3.7	129	239	32	157
July	22	0.5	8	0.2	3	5	1	8
Aug.	1	*	8	0.2	5	1	2	29
Sept.	50	1.1	67	1.4	68	51	70	82
Oct.	347	7.3	264	5.7	264	251	267	217
Nov.	347	7.3	179	3.9	258	142	98	264
Dec.	964	20.2	604	13.0	447	247	631	906
Total	4,779	100.0	4,649	100.0	4,393	4,448	4,178	5,579

Source: Statistics Canada.

Brussels Sprouts: Percentage Distribution of Imports from
United States, by State of Origin, by
Region, 1972-1974

	<u>California</u>	<u>Other</u>	<u>Total</u>
	- per cent -		
<u>1972</u>			
Maritime Region	100.0	-	100.0
Central Region	99.9	0.1	100.0
Western Region	100.0	-	100.0
Canada	99.9	0.1	100.0
<u>1973</u>			
Maritime Region	98.2	1.8	100.0
Central Region	99.9	0.1	100.0
Western Region	100.0	-	100.0
Canada	99.9	0.1	100.0
<u>1974</u>			
Maritime Region	100.0	-	100.0
Central Region	98.5	1.5	100.0
Western Region	100.0	-	100.0
Canada	99.2	0.8	100.0

Source: Agriculture Canada.

Appendix Table 9a

**Brussels Sprouts: Weekly Wholesale to Retail Prices at
Halifax, Montreal and Toronto, 1974**

Week Ending	Halifax		Montreal		Toronto	
	Cal.		Cal.	Que.	Mex.	Ont.
	12 x 1 pt. flat (12 lb.)		ctn. (25 lb.)	ctn. 12 x 1 pt. (12 lb.)	ctn. - 12 x 10 oz. - (7.5 lb.)	
- cents per pound -						
Jan. 4						
11						
18						
25						
Feb. 1						
8			33.5			
15			32.5			
22			32.5			
Mar. 1						
8						
15			33.0			
22			33.0			51.7
29			33.0			51.7
Apr. 5					51.7 (a)	
12					55.1 (a)	
19					55.1 (a)	
26	66.7				58.4 (a)	
May 3	62.5				58.4 (a)	
10	62.5				58.4 (a)	
17					58.4 (a)	
24					58.4 (a)	
31					58.4	
Aug. 2				42.8		
9				42.8		
16				32.3		
23				40.7		
30						
Sept. 6						
13				42.8		58.4
20				42.8		58.4
27			39.5	42.8		58.4
Oct. 4			36.5	42.8		58.4
11			36.5	43.8		58.4
18	71.7		37.0	40.7		58.4
25	64.6		37.5			58.4
Nov. 1	61.7		37.5			56.7
8	61.7		38.5			55.1
15	63.3		37.0			55.1
22	63.3					55.1
29	60.8					55.1
Dec. 6	60.8		42.0			55.1
13	53.3		42.0			
20	60.4		41.5			
27	60.4		40.5			

(a) Imported in bulk and repacked into smaller retail size packs.

Source: Agriculture Canada.

**Brussels Sprouts: Weekly Wholesale to Retail Prices at
Winnipeg and Vancouver, 1974**

Week Ending	Winnipeg				Vancouver
	Cal.		Man.		Cal.
	ctn.	ctn.	ctn.	cello	ctn.
	12 x 10 oz. (7.5 lb.)	(25 lb.)	(25 lb.)	(12 lb.)	(25 lb.)
- cents per pound -					
Jan. 4	90.0				38.0
11	85.1				35.2
18	84.0				37.5
25	84.0				35.5
Feb. 1	78.4				35.0
8	83.3				34.5
15	83.3	32.8			34.5
22	83.3	40.0			33.9
Mar. 1	72.7	38.9			33.9
8	72.7	38.9			30.5
15	72.0	37.5			30.5
22		41.5			32.0
29		42.9			32.5
Apr. 5		41.5			32.5
12		43.5			
19	83.3	46.8			
26	83.3	42.8			
May 3		42.0			
10		43.0			
17		44.0			
24					
31		39.5			
Aug. 2					
9					
16					
23					
30					
Sept. 6					
13			39.0		
20			38.7		33.0
27			39.0		33.0
Oct. 4		38.5	38.7		33.0
11		39.5	39.5		33.0
18		39.0	38.5		34.8
25		39.0	39.0		
Nov. 1		37.0	39.5	43.8	
8		38.5	38.5	41.7	
15		37.5	37.5	41.7	
22		37.5	37.5	41.7	
29		40.5	37.0	41.7	
Dec. 6		41.5	37.0	41.7	
13		41.0	37.0	41.7	
20		47.5	35.0	41.7	
27		47.5	35.0	41.7	38.4

Source: Agriculture Canada.

Imported United States Brussels Sprouts: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Toronto; Selected Data by Month, 1972 and 1973

Month of Shipment	1972					1973				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
					- cents per pound					
January	-	-	-	-	-	Calif.	22.6	4.2	-	26.8
September	-	-	-	-	-	Calif.	22.6	4.3	3.6	30.5
October	Calif.	16.6	4.3	1.6	22.5	Calif.	22.6	4.4	3.8	30.8
November	Calif.	16.6	4.2	1.6	22.4	-	-	-	-	-
December	Calif.	20.6	4.3	2.0	26.9	-	-	-	-	-

Source: Tariff Board Survey.

Imported United States Brussels Sprouts: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty, Winnipeg and Vancouver; Selected Data by Month, 1974

Month of Shipment	Winnipeg					Vancouver					Total Landed Cost
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid		
January	Calif.	25.0	3.4	-	28.4	-	-	-	-	-	17.5
	-	-	-	-	-	Calif.	15.0	2.5	-	-	18.0
	-	-	-	-	-	"	15.6	2.4	-	-	17.0
February	-	-	-	-	-	Calif.	14.3	2.5	-	-	16.8
	-	-	-	-	-	"	16.4	2.5	-	-	18.9
	-	-	-	-	-	Calif.	13.6	2.2	-	-	15.8
March	-	-	-	-	-	"	15.0	2.5	-	-	17.5
	-	-	-	-	-	"	17.1	2.5	-	-	19.6
	-	-	-	-	-	Calif.	15.0	2.5	-	-	17.5
April	-	-	-	-	-	"	17.9	2.5	-	-	20.4
	-	-	-	-	-	Calif.	25.0	2.4	2.5	-	29.9
September	-	-	-	-	-	Calif.	25.0	2.4	-	-	29.9
October	-	-	-	-	-	Calif.	25.0	2.4	-	-	29.9
November	Calif.	25.6	3.3	4.5	33.4	-	-	-	-	-	-
	"	29.4	5.6	3.4	38.4	-	-	-	-	-	-
December	Calif.	26.4	5.7	3.4	35.5	-	-	-	-	-	-
	"	28.5	3.5	4.6	36.6	-	-	-	-	-	-

Source: Tariff Board Survey.

Brussels Sprouts: Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound,
California, 1966-1974^(a)

	<u>Acreage</u>	<u>Production</u> '000 lb.	<u>Average</u> <u>Yield</u> lb.	<u>Farm Value</u> \$'000 ¢/lb.	
Average 1966-70 ^(b)	6,550	64,460	9,841	7,721	12.0
1971	5,400	62,100	11,500	7,835	12.6
1972	6,100	70,200	11,508	10,112	14.4
1973	6,100	64,100	10,508	8,894	13.9
1974	5,700	65,600	11,509	12,169	18.6
Average 1971-74	5,825	65,500	11,245	9,753	14.9

(a) Includes production for fresh market and processing.

(b) Data for United States.

Source: U.S. Department of Agriculture.

Brussels Sprouts: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year ^(a)	Maritime Provinces			Central Canada ^(b)			Western Canada ^(c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	-	-	-	Aug. 26	Nov. 16	82	Sept. 22	Nov. 10	49
1967	-	-	-	Aug. 15	Nov. 24	101	Sept. 29	Nov. 22	54
1968	-	-	-	Sept. 17	Dec. 2	76	Oct. 24	Dec. 2	39
1969	-	-	-	Sept. 9	Nov. 26	78	Sept. 23	Nov. 21	59
1970	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	Sept. 28	Dec. 13	76
1972	-	-	-	-	-	-	Sept. 21	Dec. 11	81
1973	-	-	-	Aug. 15	Dec. 5	112	Sept. 25	Dec. 31	97
1974	-	-	-	Sept. 5	Nov. 29	85	Oct. 1	Dec. 31	91
1975	-	-	-	Aug. 22	Oct. 31	70	Oct. 2	Dec. 31	90

^(a) Government fiscal year commencing April 1st; ending March 31st following year.

^(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

^(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Appendix Table 13

Brussels Sprouts: Dutiable Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Imports			Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%			
1966	3,975	5	0.1	15.0	3.0	20.0
1967	4,236	1	*	14.4	3.0	20.8
1968	5,651	3,042	53.8	13.8	3.0	21.7
1969	4,984	2,358	47.3	14.7	3.0	20.4
1970	5,047	2,600	51.5	16.0	3.0	18.8
Average 1966-70	4,779	1,601	33.5	14.8	3.0	20.3
1971	4,645	2,795	60.2	16.3	3.0	18.4
1972	4,393	2,728	62.1	15.6	3.0	19.2
1973	4,448	3,384	76.1	19.5	3.0	15.4
1974	4,178	3,129	74.9	20.1	3.0	14.9
1975	5,579	3,564	63.9	22.2	3.0	13.5
Average 1971-75	4,649	3,120	67.1	18.7	3.0	16.0

Source: Statistics Canada.

CABBAGETable of Contents

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CABBAGE

Cabbage (Brassica oleracea var. capitata) is the most important vegetable of the cruciferae or mustard family. It is generally conceded that our present-day varieties of cabbage originated from the wild cabbage which is found growing along the chalky coasts of England and along the western and southern coasts of Europe. Cabbage has been used as a food crop for many centuries and is still one of the leading vegetable crops of the world. Cabbage was introduced into North America by Jacques Cartier on his third voyage.

Cabbage ranks high in nutrient value, particularly in Vitamins C and A. Probably one of the major reasons for its popularity has been its ease of growing under widely varying conditions of climate and soil, ranging from the cool temperate region to the semitropical. Most home gardens include cabbage and nearly all areas of Canada from the southern-most point in Ontario to the Northwest Territories can readily grow cabbage.

With the availability throughout the year of fresh cabbage from the southern United States, the apparent preference of Canadian consumers for fresh green cabbage, as compared to "white" stored cabbage, has created an interest in Canada in the production of the so-called evergreen stored cabbage. Although cabbage is mainly identified with various green varieties, there is a limited demand for red cabbage.

Cabbage is a storable vegetable. It is grown and harvested in Canada during the period June to December inclusive, although peak production occurs during the months July to November. A portion of the crop is stored, with small amounts moving out of storage as late as April and May. Cabbage is however not a crop ideally suited for storage. The outer leaves of the cabbage head lose their colour in storage and the texture and flavour generally deteriorates. The bulk of the late cabbage put into storage, has been marketed before the end of March.

The bulk of cabbage output is consumed in fresh form. In the processed form it is mostly used in sauerkraut. Cabbage does not adapt itself to freezing and canning as other vegetables. The commercial value of cabbage grown in Canada in 1974 was about \$7 million at the farm level and over \$10 million at the wholesale-retail level.

GROWING, HARVESTING AND MARKETING

In Canada, cabbage for the early fresh market is usually planted from seedlings in the later part of May. The seedlings usually mature within 30 to 60 days. For the later fresh market and for processing, cabbage is sown in May and June, with usually 90-110 days being required for maturity.

Growing cabbage has traditionally been a labour-intensive operation requiring hand labour for transplanting, weed control and harvesting. However, a number of recent developments, such as the

mechanical harvesting of cabbage for processing and the development of selective herbicides, have greatly reduced hand labour requirements and have resulted in improved efficiency in production.

The introduction of precision seeding techniques in recent years has provided optimum seed spacing, eliminating hand thinning and resulting in the production of more uniform disease-free cabbages. In addition, recent research indicates that greater uniformity of heads is possible if the seed is carefully graded to a uniform size. It may eventually be possible to seed an entire crop at one time yet permit the harvest to be spaced over many weeks by the simple expediency of sizing the seed before planting and then keeping each size group separate from one another.

Current breeding selection efforts are directed towards hybrids with small more compact heads and light wrapper leaves capable of long distance shipping. In addition, efforts are being directed toward developing a cabbage which will retain its colour for long periods of time and which will come on to the market out of storage having a fresh unstored appearance. Improved storability could not only provide domestic consumers with Canadian-grown cabbages of a high quality practically all the year round, but could also be a key factor in the development of an increasing export trade in cabbage.

ACREAGE, PRODUCTION AND FARM VALUE

In Canada, production of cabbage is concentrated in the period June to December. Since cabbage is a storable vegetable, a certain portion of the annual production is taken from the fields and stored for release on the market after December. Based on the information contained in Appendix Table 4, it is estimated that during 1971-74 an annual average of 131.3 million pounds of cabbage, or 90 per cent of domestic production for fresh consumption, was marketed direct from the field during the months June to December, while 15.4 million pounds, or 10 per cent, was stored for subsequent marketing.

As shown in Table 1, the acreage in cabbage in Canada has increased substantially in recent years, from an average of 7,238 acres in 1961-65 to an average of 8,805 acres in 1971-74, or by 21.6 per cent. The largest absolute increase occurred in Quebec, where the acreage under cabbage increased by 1,308 acres or by 52.3 per cent, accounting for 83.5 per cent of the total Canadian expansion. The Prairies was the only region witnessing a decline in cabbage acreage during this period. In 1971-74, Quebec accounted for 43.3 per cent of cabbage acreage in Canada, while Ontario accounted for 33.0 per cent.

The average yield of cabbage per acre has remained relatively constant on a national basis since 1961; it was 19,246 pounds in 1971-74, compared with 20,111 pounds in 1966-70 and 18,985 pounds in 1961-65. By region or province, the yield per acre increased in the Prairies and Ontario between 1961-65 and 1971-74, while it declined in British Columbia, Quebec, and the Maritimes. In absolute terms, Ontario enjoyed the highest yield per acre, it averaged 29,507 pounds during 1971-74, while Quebec registered the lowest, 13,105 pounds.

Table 1: Cabbage: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	<u>Average</u> <u>1961-65</u>	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes	456	624	530	540	570	630	568	+ 24.6
Quebec	2,502	2,634	3,310	3,400	3,950	4,580	3,810	+ 52.3
Ontario	2,896	2,810	2,780	2,780	3,130	2,920	2,903	+ 0.2
Prairies	882	862	780	720	660	630	698	- 20.9
B.C.	502	724	690	840	960	820	828	+ 64.9
Canada	<u>7,238</u>	<u>7,654</u>	<u>8,090</u>	<u>8,280</u>	<u>9,270</u>	<u>9,580</u>	<u>8,805</u>	+ 21.6
- Production, '000 lb. -								
Maritimes	7,965	10,628	8,970	10,000	9,849	10,155	9,744	+ 22.3
Quebec	33,761	42,095	54,615	30,940	50,955	63,204	49,929	+ 47.9
Ontario	74,674	74,903	83,700	84,082	91,083	83,772	85,659	+ 14.7
Prairies	12,720	14,737	13,760	12,414	11,543	10,211	11,982	- 5.8
B.C.	8,294	11,568	9,934	12,762	14,180	11,725	12,150	+ 46.5
Canada	<u>137,415</u>	<u>153,930</u>	<u>170,979</u>	<u>150,198</u>	<u>177,610</u>	<u>179,067</u>	<u>169,464</u>	+ 23.3
- Average Yield, lb. -								
Maritimes	17,467	17,032	16,925	18,519	17,279	16,119	17,155	- 1.8
Quebec	13,494	15,981	16,500	9,100	12,900	13,800	13,105	- 2.9
Ontario	25,785	26,656	30,108	30,245	29,100	28,689	29,507	+ 14.4
Prairies	14,422	17,096	17,641	17,242	17,489	16,208	17,166	+ 19.0
B.C.	16,522	15,978	14,397	15,193	14,771	14,299	14,674	- 11.2
Canada	<u>18,985</u>	<u>20,111</u>	<u>21,135</u>	<u>18,140</u>	<u>19,160</u>	<u>18,692</u>	<u>19,246</u>	+ 1.4
- Farm Value, \$ '000 -								
Maritimes	267	431	397	517	596	589	525	+ 96.6
Quebec	653	842	1,169	1,454	1,936	1,580	1,534	+134.9
Ontario	1,338	1,934	2,212	2,858	3,537	3,128	2,934	+119.3
Prairies	294	426	457	471	653	645	557	+ 89.5
B.C.	354	557	616	730	1,158	1,007	878	+148.0
Canada	<u>2,906</u>	<u>4,190</u>	<u>4,851</u>	<u>6,030</u>	<u>7,880</u>	<u>6,949</u>	<u>6,428</u>	+121.2
- Farm Value, ¢ per lb. -								
Maritimes	3.4	4.1	4.4	5.2	6.1	5.8	5.4	+ 58.8
Quebec	1.9	2.0	2.1	4.7	3.8	2.5	3.1	+ 63.2
Ontario	1.8	2.6	2.6	3.4	3.9	3.7	3.4	+ 88.9
Prairies	2.3	2.9	3.3	3.8	5.7	6.3	4.6	+100.0
B.C.	4.3	4.8	6.2	5.7	8.2	8.6	7.2	+ 67.4
Canada	<u>2.1</u>	<u>2.7</u>	<u>2.8</u>	<u>4.0</u>	<u>4.4</u>	<u>3.9</u>	<u>3.8</u>	+ 81.0

Source: Statistics Canada.

Although average yields, on a national basis, have remained relatively stable, the expansion in acreage since 1961 has resulted in a steady increase in Canadian cabbage production. This averaged 169.5 million pounds annually in 1971-74 compared with 137.4 million pounds in 1961-65. As a result of substantially higher yields, Ontario accounted, on average, for 50.5 per cent of total Canadian production during 1971-74 with only a third of the acreage; Quebec with more than 40 per cent of the Canadian cabbage acreage produced 29.5 per cent of total output.

The return to cabbage growers in Canada has also shown a steady increase since 1961. In 1971-74 Canadian cabbage growers received an average of 3.8 cents per pound as compared to 2.7 cents in 1966-70 and 2.1 cents in 1961-65. The increase between 1961-65 and 1971-74 averaged 81 per cent, with the largest and lowest proportionate gains being recorded in the Prairies and Maritimes respectively. In absolute terms, farm prices in 1971-74 ranged on a regional basis, from 3.1 cents per pound in Quebec to 7.2 cents per pound in British Columbia.

As a result of greater production and higher prices, the farm value of cabbage production in Canada increased from an annual average of \$2.9 million in 1961-65 to \$4.2 million in 1966-70 and to \$6.4 million in 1971-74. During the latter period almost 46 per cent of the total farm value of cabbage production in Canada accrued to growers in Ontario, while growers in Quebec secured approximately 24 per cent.

SUPPLY AND DISPOSITION

The annual consumption of cabbage in Canada during the period 1971-74, averaged 274.9 million pounds, an increase of 35.4 per cent over the corresponding figure for 1961-65 (see Table 2). Like lettuce, cabbage is primarily a fresh market product, only 7.3 per cent of total domestic consumption during 1971-74 being in processed form. Of the 2.8 million pounds of fresh cabbage exported annually during this period, comprising only 1.6 per cent of total Canadian production, all is believed to have been for the fresh market. On a per capita basis consumption of cabbage increased from an average 10.72 pounds per year in 1961-65 to 12.50 pounds in 1971-74, or by 16.6 per cent.

Although domestic production has expanded, imports have grown to an even greater extent, increasing their share of the Canadian fresh market from 35.5 per cent in 1961-65 to 42.4 per cent in 1971-74.

As shown in Table 3, approximately 83 per cent of domestic fresh market requirements for cabbage during the production season were, in 1971-74 met from domestic production. Conversely, the bulk, about 84 per cent, of fresh market demand during the storage season was met by imports. The Canadian consumer is, therefore, mostly dependent on imports during the period when only stored cabbage is available, and the Canadian grower has the domestic market largely to himself during the months when cabbage is available fresh from the field. It is noteworthy that imports have not only increased their market share during the storage season but also during the production season; in the case of the latter primarily during the shoulder months June and December.

Table 2: Cabbage: Supply and Disposition, Canada, Crop Years 1961-65 to 1971-74

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb. -				
<u>Total Production</u>	137,415	153,930	170,979	150,198	177,610	179,067	169,464	+23.3
<u>Total Imports, Fresh^(a)</u>	67,686	82,420	88,579	116,314	106,998	120,758	108,162	+59.8
<u>Total Supply Available</u>	205,101	236,350	259,558	266,512	284,608	299,825	277,626	+35.4
Available for processing from domestic production	12,310 ^(b)	14,000	16,000	16,000	28,000	20,000	20,000	+62.5
Available for fresh market ^(a)	192,791	222,350	243,558	250,512	256,608	279,825	257,626	+33.6
From domestic production	125,105	139,930	154,979	134,198	149,610	159,067	149,464	+19.5
<u>Imported^(a)</u>	67,686	82,420	88,579	116,314	106,998	120,758	108,162	+59.8
<u>Total Exports, Fresh</u>	2,140	1,762	2,961	1,773	5,598	737	2,767	+29.3
<u>Total Domestic Disappearance</u>	202,961	234,588	256,597	264,739	279,010	299,088	274,859	+35.4
Consumed in processing form from domestic production	12,310 ^(b)	14,000	16,000	16,000	28,000	20,000	20,000	+62.5
Fresh market consumption ^(a) :	190,651	220,588	240,597	248,739	251,010	279,088	254,859	+33.7
From domestic production	122,965	138,168	152,018	132,425	144,012	158,330	146,697	+19.3
<u>Imported^(a)</u>	67,686	82,420	88,579	116,314	106,998	120,758	108,162	+59.8

(a) Includes small volumes of fresh cabbage imported for processing. Data on such imports are confidential except for the years 1962 and 1963, (64,000 and 60,000 lb., respectively were imported).

(b) The 1964 figure includes a small volume of fresh imported cabbage for processing.

Source: Derived from Statistics Canada and Agriculture Canada data.

Table 3: Cabbage: Production, Imports and Consumption,
Selected Averages, 1961-1974

	<u>Average</u> <u>1961-65</u>	<u>Average</u> <u>1966-70</u>	<u>Average</u> <u>1971-74</u>
	- '000 lb. -		
Field Production			
for Fresh Market			
Production period ^(a)	112,025	124,836	131,301
Storage period ^(b)	<u>10,940</u>	<u>13,332</u>	<u>15,396</u>
Total	122,965	138,168	146,697
Imports			
Production period ^(a)	12,560	18,064	26,735
Storage period ^(b)	<u>55,125</u>	<u>64,356</u>	<u>81,428</u>
Total	67,685	82,420	108,162
Fresh Market Consumption			
Production period ^(a)	124,585	142,900	158,036
Storage period ^(b)	<u>66,065</u>	<u>77,688</u>	<u>96,824</u>
Total	190,650	220,588	254,859
Domestic Production			
as % of Fresh Market			
Consumption			
Production period ^(a)	89.9	87.4	83.1
Storage period ^(b)	16.6	17.2	15.9
Total	64.5	62.6	57.6

(a) June to December.

(b) January to May.

Source: Derived from Statistics Canada and Agriculture Canada data.

IMPORTS

Almost all imports of cabbage come from the United States with very small shipments recorded periodically from other countries such as Mexico, the Netherlands, and Cuba (see Appendix Table 5). Texas, California, and Florida are the main United States sources of cabbage imports; in 1974, Texas supplied 33.6 per cent, California, 27.7 per cent and Florida, 18.0 per cent of total Canadian imports by volume (see Appendix Table 8).

Ontario and Quebec accounted for over 60 per cent of total fresh cabbage imports in 1974; the Prairies and British Columbia, accounted for about 30 per cent, while the Atlantic Provinces took 9 per cent (see Appendix Table 6). While the western and Atlantic regions imported most of the cabbage from California and Texas, the central region imported mainly from Florida and Texas. In all regions about 90 per cent of imports occurred during the January-June period.

EXPORTS

The bulk of cabbage exports have been to the United States, with some exports to Bermuda and other countries. The proportion of exports to other countries has, however, been declining rapidly and in 1971-74 exports to the United States constituted over 95 per cent of the total (see Appendix Table 9).

PRICES

As indicated in Table 1, the average farm value of cabbage was 7.2 cents per pound during 1971-74 in British Columbia, 5.4 cents in the Atlantic region, 4.6 cents in the Prairies, 3.4 cents in Ontario and 3.1 cents in Quebec. These returns represented increases over the corresponding values for 1961-65 ranging between 63 per cent in the case of Quebec, to 100 per cent in the case of the Prairies.

Wholesale-to-retail selling prices of fresh market cabbage also show considerable variations when compared on a regional or on a seasonal basis, as revealed by the following table for 1974.

Table 4: Wholesale-to-Retail Selling Prices for Domestic and Imported Cabbage in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974

	<u>Halifax</u>		<u>Montreal</u>		<u>Toronto</u>		<u>Winnipeg</u>		<u>Vancouver</u>	
	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>
- ¢ per lb. -										
July	13.0	12.6	3.9	-	-	-	11.3	-	-	-
Aug.	11.2	-	3.5	-	4.8	-	10.0	-	12.0	-
Sept.	8.0	-	3.1	-	4.4	-	9.1	9.0	11.8	-
Oct.	6.5	-	2.8	-	5.6	-	9.4	9.6	11.8	-
Nov.	6.5	-	3.2	-	5.6	-	9.7	9.9	11.7	-
Dec.	6.5	-	5.0	11.6	8.2	11.0	7.9	10.1	12.2	-
Jan.	11.0	-	7.0	9.2	5.7	9.5	8.0	11.1	10.7	11.7
Feb.	11.0	-	5.9	10.2	6.1	9.0	7.0	10.2	9.6	11.5
Mar.	11.0	13.5	6.4	10.3	6.8	8.6	7.8	11.3	9.0	10.9
Apr.	-	11.7	6.3	9.3	-	8.4	-	9.1	-	9.7
May	-	13.8	-	11.0	-	9.9	-	12.5	-	13.0
June	-	13.4	-	10.2	-	10.1	-	12.4	-	13.1

Note: Because of the seasonal nature of domestic production and imports, prices are quoted for the respective seasonal periods for both domestic production and imports. Some differential in the prices from one area to another is due to the difference in size, package or quality.

Source: Appendix Tables 11a and 11b.

The average wholesale-to-retail prices for domestically produced cabbage at each of the various markets conform in general to the regional differences in average returns to the grower. Wholesale

prices are highest in Vancouver, followed by Halifax, Winnipeg, Toronto, and Montreal. The close relationship between the farmer's return and wholesale prices and their mark-ups in different regions is evident from the following figures.

Table 5: Farmer's Return and Wholesale-to-Retail Prices,
by Region, 1974

<u>Region</u>	<u>Average Return to Farmers</u> ¢/lb.	<u>Market Centre</u>	<u>Av. Wholesale-to- Retail Prices, Domestic Produce</u> ¢/lb.
British Columbia	8.6	Vancouver	11.1
Maritimes	5.8	Halifax	9.4
Prairies	6.3 ^(a)	Winnipeg	8.9
Ontario	3.7	Toronto	5.9
Quebec	2.5	Montreal	4.7

(a) In other years farm returns per lb. have generally been higher in the Maritimes than on the Prairies.

Source: Table 1 and Appendix Tables 11a and 11b.

An examination of the wholesale-to-retail weekly price data for 1974 contained in Appendix Tables 11a and 11b, and summarized in Table 4, shows that imports during the peak production period are very small as price quotations for the imported product were not established. Wholesale-to-retail price quotations for imported cabbage appear generally in December and January, when marketings of domestic cabbage come out of storage. Prices of imported cabbage are invariably higher than those of domestic cabbage marketed at that time, because the imports are fresh from the field while the local product has been stored.

The information collected by the Board on the landed cost of imported cabbage is summarized in Table 6. It is apparent from this table that the duty paid on the imported cabbage was the smallest and the most stable cost component in the total landed cost. The costs of transportation, including freight and brokerage, constituted a much more important factor in the landed cost than the duty paid. In 1974, duty costs added 0.9 cent per pound to f.o.b. prices of imported cabbage. During the same year transportation costs added 2.6 to 3.8 cents per pound at Toronto to the f.o.b. cost; from 3.7 to 5.5 cents at Winnipeg and from 2.3 to 4.2 cents at Vancouver.

Table 6: The Landed Cost of Imported Cabbage in Toronto, Winnipeg, and Vancouver, 1972-1974

		<u>Cost</u> <u>f.o.b.</u>	<u>Freight</u> <u>Brokerage</u> <u>etc.</u>	<u>Duty</u>	<u>Total</u> <u>Landed</u> <u>Cost</u>
- range in ¢ per lb. -					
Toronto	1972	2.6-5.5	1.4-4.0	Free-0.9	6.5-8.5
	1973	3.0-6.9	2.4-3.1	Free-0.9	5.7-9.4
	1974	4.1-5.9	2.6-3.8	Free-0.9	7.6-9.3
Winnipeg	1974	3.0-6.0	3.7-5.5	Free-0.9	7.2-12.3
Vancouver	1974	2.5-8.0	2.3-4.2	Free-0.9	4.8-10.9

Source: Appendix Tables 12a and 12b.

CANADA-UNITED STATES COMPARISONS

In 1974, cabbage production in the United States totalled about 2.5 billion pounds, compared with 179.1 million pounds in Canada (see Appendix Table 13a). However, whereas U.S. production of cabbage remained virtually the same between 1966-70 and 1971-74, average Canadian production during the same period increased by 10.1 per cent. Further, while the planted acreage under cabbage in the United States underwent a decline of 3.0 per cent, in Canada there was a corresponding increase of 15.0 per cent. However, average yield per acre increased slightly in the United States from 21,069 pounds in 1966-70 to 22,198 pounds in 1971-74 (or by 5.4 per cent), while in Canada it dropped by 4.3 per cent.

As already stated, Texas and California have been the principal U.S. sources of cabbage imports into Canada, particularly into the western region, while Florida and Arizona have been important sources of imports into central Canada and the Atlantic region. Average yields in Texas and California in 1971-74 amounted to 18,844 and 22,030 pounds per acre respectively as compared to 29,507 and 13,105 pounds per acre in Ontario and Quebec respectively.

In order to assess the competitive situation of cabbage grown in Canada and the United States the Board examined cost data relating to production in California, Florida, Texas, New York and Ontario (see Table 7). Because of the limited size of the sample, the deviations from recorded average yields and the difference in reference periods, the data should be interpreted with considerable caution. It would appear that the growers in the Ontario sample have substantially lower unit costs, particularly from the viewpoint that the samples for other growing areas were for earlier years after which there has been a sharp rise in costs of production inputs. On the other hand the average Ontario grower probably has not done quite as well because his yield is considerably lower than 36,000 pounds per acre. Moreover, there are growers in other regions who have, not only, lower yields than those indi-

cated for Ontario, but higher input costs as well, for example, British Columbia growers. Therefore while it appears likely that unit costs of producing cabbage are at least comparable for the bulk of the cabbage grown in Canada, there are some regions which face a disadvantage in this respect.

Table 7: Cabbage: Fresh Market Production Costs in Ontario and U.S. Growing Areas

	California 1973	Florida 1972-73	Texas 1969	New York 1968-71	Ontario 1974
Yield per acre, lb.	27,500	28,050	20,000	21,420	36,000
- \$ per acre -					
Pre-harvest or cultivation costs	246.76	489.32	184.00	368.23	386.10
Harvesting and marketing costs	825.00	699.54	428.00	540.34	603.90
Overhead Costs (a)					
Land charges	100.00	27.14	17.00	50.44	150.00
Other overhead	56.22	14.24	32.36	..	17.86
Total	156.22	41.38	49.36	50.44	167.86
Total Costs	1,227.98	1,230.24	661.36	959.01	1,157.86
Total Costs (¢/lb.)	4.46	4.39	3.31	4.47	3.22

(a) Land charges based on land use for only part of year in California, Florida, and Texas.

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

TARIFF CONSIDERATIONS

All cabbage, except certain varieties such as the Chinese cabbage, imported into Canada enter under tariff item 8706-1, at the following rates of duties:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Cabbage per pound	Free	Free or 9/10 ct. or 10 p.c.	Free or 9/10 ct. or 10 p.c.

The Free rate shall apply during the months of March and April.

During the remaining months in any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 30 weeks which may be divided into two separate periods; and the 10 per cent duty shall apply whenever the specific duty is not in effect.

In the above form, the item is bound under GATT. It took this form in 1959, when the 26-week maximum period for the application of the specific duty was extended to 30 weeks and duty-free entry was prescribed for the months of March and April. The 10 per cent ad valorem rate was temporarily suspended and off-season free entry substituted from February 20, 1973 to June 30, 1974 and from November 19, 1974 to June 30, 1977.

As shown in Table 8, the M.F.N. rate was reduced from 27½ p.c. in 1935 to 15 p.c. in 1936-38, and to 10 p.c. in 1939-47. In 1948 it was changed to a seasonal specific duty of 9/10 cent a pound for a maximum period of 26 weeks, with the 10 p.c. rate being returned for the rest of the year. B.P. imports have always been free of duty.

Table 8: Cabbage: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. (a)
1936-38	Free	15 p.c.	30 p.c. (a)
1939-47	Free	10 p.c.	30 p.c. (a)
1948-1950 (May 31)	Free	9/10 ct. (26 weeks) (b) 10 p.c.	30 p.c. (a)
1950 (June 1) - 1959 (April 9)	Free	9/10 ct. (26 weeks) 10 p.c.	9/10 ct. (26 weeks) 10 p.c.
1959 (April 10) - 1973 (Feb. 19)	Free	Free 9/10 ct. (30 weeks) 10 p.c.	Free 9/10 ct. (30 weeks) 10 p.c.
1973 (Feb. 20)	Free	9/10 ct. (30 weeks) Free (c)	9/10 ct. (30 weeks) Free (c)
1974 (July 1)	Free	Free 9/10 ct. (30 weeks) 10 p.c.	Free 9/10 ct. (30 weeks) 10 p.c.
1974 (Nov. 19)	Free	9/10 ct. (30 weeks) Free (d)	9/10 ct. (30 weeks) Free (d)

(a) Not less than 1 ct., June 15-Jan. 31.

(b) Not applied until 1950.

(c) From February 20, 1973 to June 30, 1974.

(d) Expires June 30, 1977.

Source: Canadian Customs Tariff.

Cabbage is imported into the United States under tariff item 135.30, Part 8 - Vegetables, Subpart A. - Vegetables, Fresh, Chilled, or Frozen.

	<u>Col. 1</u>	<u>Col. 2</u>
Item 135.30 Cabbage	0.55¢ per lb.	2¢ per lb.

Although the application of the seasonal specific duty on cabbage is authorized for 30 weeks in continuous or split periods in each of the three tariff zones, the use of the duty has differed from year to year and from one tariff region to another, as shown in the Appendix Table 14 covering the period 1966-1975. In the Atlantic Provinces the seasonal duty has been applied for the full 30 weeks in half the years under review. In this region, the seasonal duty has not been applied in the months of May and June, while imports in March and April have been duty-free. In central Canada, the seasonal duty has usually been in effect for the full 30-week period anywhere from June to January. In western Canada, the seasonal duty was split into two periods (usually from June to October and from November to February) in five of the 10 years examined. In the recent years when the duty was not split, it was in effect over the July to February period (see Appendix Table 14).

The proportion of imported cabbage subject to duty has declined since 1966, from an average of 61.2 per cent in 1966-70 to an average of 34.7 per cent of total imports in 1971-75 (see Appendix Table 15). The drop in dutiable imports in the latter period was the result of the temporary suspension of the 10 per cent ad valorem rate from February 20, 1973, rather than a change in the seasonal import pattern.

Based on five-year averages the ad valorem equivalent of the specific duty more or less remained the same, between 1966-70 (when it was 20.0 per cent) and 1971-75 (when it was 19.6 per cent). During the latter period, however, there was a decline in the ad valorem equivalent from 20.9 per cent in 1973 to 14.3 per cent in 1975, thus reflecting an increase in the f.o.b. price of imported cabbage from 4.3 cents to 6.3 cents per pound.

The Canadian Horticultural Council proposed an increase in the specific duty from 9/10 cent per pound to $1\frac{1}{4}$ cents per pound under both the Most-Favoured-Nation and the General Tariff, with a minimum of 20 p.c., and the replacement of the present 30-week-divided period by a 40-week-divided period. It also proposed that the present 10 p.c. rate, applicable when the specific duty is not in effect, be dropped. This would in effect extend the duty-free period from nine weeks to 12 weeks. The Council also requested that the wording of the tariff item be revised to make it clear that red cabbage and the curly-leafed Savoy cabbage are included with green cabbage. The Council also proposed that the B.P. rate, at present Free, be raised to the same level as the M.F.N. and Gen. rate.

The Council also proposed that a new tariff item for Chinese cabbage should be introduced into the Canadian Customs Tariff schedule with the same rates of duty as those applicable to the other cabbage. This proposal is dealt with separately under the section dealing with other vegetables.(1)

The Canadian Food Processors Association requested a specific tariff item for cabbage for manufacture with free entry during the off-season, and a 10 p.c. rate for a maximum of 30 weeks.

The proposal of the Horticultural Council for a seasonal specific duty of $1\frac{1}{4}$ cents per pound would increase the rate of duty for the 30 weeks during which the specific duty is currently applicable by 0.35 cent per pound. For the additional 10 weeks for which application of the specific duty is being sought, the increase in duty would be from 10 p.c., or, on the basis of 1974 unit import values, $\frac{1}{2}$ cent per pound to $1\frac{1}{4}$ cents, an increase of $\frac{3}{4}$ cent per pound. For the additional three weeks of free entry the reduction in duty would amount to 10 p.c. or $\frac{1}{2}$ cent per pound, based on 1974 values, as well.

A specific duty of $1\frac{1}{4}$ cents per pound, relative to an average f.o.b. unit import value in 1974 of 5.2 cents per pound, is equivalent to 24 per cent ad valorem. The minimum ad valorem rate of 20 per cent proposed by the Council would come into effect when the f.o.b. import price reaches $6\frac{1}{4}$ cents per pound; on the basis of the f.o.b. value of imported cabbage in 1975 it would appear that a 20 p.c. minimum would already be, for a large proportion of imports, the effective rate of duty. A specific duty of 1 cent per pound would be in line with a minimum ad valorem rate of 15 per cent. It should be noted that the 20 p.c. minimum would allow most of the protection lost as a result of the impact of higher prices on the specific duty to be recovered.

In essence The Canadian Horticultural Council proposed a higher level of protection for a shorter dutiable period. Duty-free access will probably be provided to imports during March, April, and May, the period when supplies of domestic stored cabbage are running out and the quality has diminished substantially. It can be argued that duty-free entry should be extended over an even greater period. The proportion of total Canadian cabbage production marketed out of storage is not large, in fact less than 10 per cent. The quality of stored cabbage at present apparently is lower than that desired by most Canadian consumers inasmuch as imports of fresh cabbage directly from the field accounts for more than 80 per cent of the market at this time of the year. On the other hand, higher protection may be warranted during the storage season, because it is felt that with the introduction into Canada of the evergreen variety of cabbage, which maintains its colour well into the winter months, and with developments in advanced methods of refrigeration and humidity control, Canadian output of cabbage, and the proportion marketed out of storage will increase.

In any event the proposal of the Council will undoubtedly increase the cost of cabbage to the Canadian consumer and will result in additional income for the government, wholesalers and retailers, and growers. The additional cost to the consumer may amount to as much as \$965 thousand, or 18 cents per family of four. Incremental growers benefits could be as high as \$552 thousand, or \$63 per acre, assuming an average yield of 19,000 pounds.

(1) See this report p. 919.

The proposal of the Canadian Food Processors Association for a separate tariff item for cabbage for processing would result, when compared with the current tariff, in a reduction in duty during the current 30-week period of application of the seasonal duty from 14.3 per cent, the ad valorem equivalent of the specific duty in 1975, to 10 per cent, the proposed rate.

The proposed rate for processing cabbage would, evidently, lower the cost of the duty to the processor by much more if the Horticultural Council's proposal of $1\frac{1}{4}$ cents per pound or a minimum ad valorem of 20 per cent were implemented. A seasonal specific duty of $1\frac{1}{4}$ cents with respect to cabbage imported for processing, which has a lower f.o.b. value than fresh market cabbage, could well have an ad valorem equivalence of close to 30 per cent. A 1 cent per pound specific duty would be equivalent to 22-25 p.c. An ad valorem rate of 15 per cent might require a specific duty of $\frac{2}{3}$ cent per pound on imports of processing cabbage.

There is no evidence of imports of cabbage for processing in any substantial volume. Furthermore it will be recalled that cabbage does not lend itself well to processing; by far the largest proportion of cabbage produced is for the fresh market. Hence the need for a separate item for processing cabbage might be considered marginal, even though the continued entry of this product under the same item as fresh market cabbage might result in a somewhat unduly high rate of protection.

CONCLUSIONS

Fresh market consumption of cabbage in Canada has grown steadily in recent years reaching 255 million pounds per year in 1971-74, approximately one-third more than in 1961-65. The production of cabbage has also increased but less so than imports. In 1971-74, imports satisfied 42.5 per cent of the domestic market, compared to 35.5 per cent in 1961-65. During the peak Canadian production season, i.e., June to December, more than 80 per cent of the market is met by domestic production, although imports during this period have nearly doubled their share. During the months when the domestic market is supplied by shipments out of storage, January to May, the bulk, and a growing proportion of the market is supplied by imports; during this period imports have accounted for over 80 per cent of consumption. In other words, it can be said that, although imports have made inroads into the domestic market, that Canada is largely self-sufficient during the months June to December when cabbage is marketed directly from the field, but is equally dependent on imports during the period January to May when domestic sales are exclusively out of storage.

The Board concludes that this industry has a strong competitive position in the Canadian market. Unit costs of production are at least comparable to those in the more prominent growing regions in the United States. The climate in Canada is well suited to the culture of this vegetable, the only climatical limitation being that it can be grown during the summer months only. Because it is difficult to store cabbage Canadian growers supply only a small part of domestic consumption during the winter months. Canadian consumers apparently prefer imported cabbage marketed fresh from the field, although recently in some parts of the country improved storage facilities are providing better quality produce to markets.

The growth in imports during the dutiable period in part reflects the erosion in the protection offered by the specific duty as a result of a higher produce price. In view of the erosion of the value of the specific duty the Board does not find the proposed rate of $1\frac{1}{4}$ cents per pound unreasonable. However, while the Board agrees that further erosion should be limited with the establishment of a minimum seasonal ad valorem rate, it feels that 20 p.c. is out of line with the competitive position of most of the Canadian producers and that 15 p.c. would be more appropriate. The Board recommends that the rate of duty under both the Most-Favoured-Nation and General Tariff be $1\frac{1}{4}$ cents per pound or not less than 15 p.c. and that the rate under the British Preferential Tariff shall continue to be Free.

The Board agrees that the current 10 p.c. rate, applicable when the seasonal duty is not in effect, should be dropped and that entry at such times should be duty-free. With respect to the request for a 40-week period of application of the seasonal duty, the Board, on balance, feels that the share of the market held by Canadian producers during February is relatively small, and marketings during this month account for such a small proportion of total Canadian production, that protection at this time, also taking into consideration the cost to consumers, does not appear warranted. The Board recommends that the period of application of the seasonal duty be limited to a maximum of 34 weeks, applicable on a regional basis, which may be divided into two separate periods, as at present.

Finally the Board concludes that, because only a small volume of cabbage is processed and because there was no evidence of significant imports of cabbage for processing, there be no separate tariff item for cabbage when imported for processing, and that cabbage for both the fresh market and for processing enter under the same tariff item and at the same rates of duty.

RECOMMENDATIONS

The Board recommends that the existing tariff schedule in effect respecting cabbage under tariff item 8706-1 be deleted and that the following schedule be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Cabbage, n.o.p. .. per pound	Free	$1\frac{1}{4}$ cts. but not less than 15 p.c., or Free	$1\frac{1}{4}$ cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 34 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Cabbage: Acreage and Number of Farms, by Province
and Region, 1961 and 1971

	1961		1971		
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	866	11.9	922	9.9	612
Nfld.	400	5.5	391	4.2	278
P.E.I.	70	1.0	53	0.6	40
N.S.	268	3.7	310	3.3	204
N.B.	128	1.8	168	1.8	90
Central Region	5,102	70.3	6,668	71.4	2,182
Que.	2,155	29.7	3,312	35.5	881
Ont.	2,947	40.6	3,356	35.9	1,301
Western Region	1,283	17.7	1,750	18.7	554
Man.	523	7.2	524	5.6	149
Sask.	59	0.8	101	1.1	62
Alta.	216	3.0	298	3.2	104
B.C.	485	6.7	827	8.9	239
Canada ^(a)	7,253	100.0	9,341	100.0	3,350

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Cabbage: Supply and Disposition Ratios, Canada,
Crop Years, 1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
- per cent -							
<u>Per Cent of Domestic Production:</u>							
Sold for Processing	9.0	9.1	9.4	10.6	15.8	11.2	11.8
Sold to Domestic Fresh Market	89.4	89.8	88.9	88.2	81.1	88.4	86.6
Exported	1.6	1.1	1.7	1.2	3.1	0.4	1.6
<u>Total Imports (Fresh) as Per Cent:</u>							
of Total Supply Available	33.0	34.9	34.1	43.6	37.6	40.3	39.0
of Total Domestic Disappearance	33.3	35.1	34.5	43.9	38.3	40.0	39.3
of Fresh Market Availability (a)	35.1	37.1	36.4	46.4	41.7	43.1	42.0
of Fresh Market Consumption (a)	35.5	37.4	36.8	46.8	42.6	43.3	42.4
<u>Per Cent of Fresh Market Consumption: (a)</u>							
From Domestic Production	64.5	62.6	63.2	53.2	57.4	56.7	57.6
From Imports	35.5	37.4	36.8	46.8	42.6	43.3	42.4
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	6.1	6.0	6.2	6.0	10.0	6.7	7.3
Consumed in Fresh Form (a)	93.9	94.0	93.8	94.0	90.0	93.3	92.7
Net Imports (b)	32.3	34.4	33.4	43.3	36.3	40.1	38.3
Production	67.7	65.6	66.6	56.7	63.7	59.9	61.7

(a) Includes small volumes of fresh cabbage imported for processing.

(b) Total imports minus exports.

Source: Table 2.

Appendix Table 3

Cabbage: Estimated Monthly Distribution of Fresh Shipments^(a)
to Principal Markets, Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	Average 1971-74	1971-72	1972-73	1973-74	1974-75
- thousand pounds -						
July	20,303	21,495	22,803	17,480	21,314	24,383
Aug.	24,116	22,861	17,938	24,499	21,458	27,549
Sept.	22,422	23,277	27,667	21,056	18,578	25,808
Oct.	20,984	22,443	20,219	20,791	22,322	26,441
Nov.	18,238	21,919	19,914	21,056	25,490	21,216
Dec.	13,127	14,152	18,242	9,799	15,265	13,300
Jan.	7,472	7,769	8,665	5,694	7,057	9,658
Feb.	3,527	4,622	5,017	3,178	6,336	3,958
Mar.	1,608	2,072	2,888	1,324	2,016	2,058
Apr.	636	849	2,280	110	864	143
May	89	84	152	22	144	16
June	5,646	5,154	6,233	7,416	3,168	3,800
Year	138,168	146,697	152,018	132,425	144,012	158,330

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Cabbage: Estimated Monthly Distribution of Fresh Market
Consumption, Crop Years, 1961-65 to 1971-74

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	(a) Imports as % of Consumption	(a) Imports as % of Consumption	From Domestic Produc- tion	From Im- ports	Total Con- sumption	(a) Imports as % of Con- sumption
	- per cent -	- per cent -	- thousand pounds -	- thousand pounds -	- thousand pounds -	- per cent -
July	4.1	11.1	21,495	3,876	25,371	15.3
Aug.	0.7	1.4	22,861	686	23,547	2.9
Sept.	0.1	0.2	23,277	363	23,640	1.5
Oct.	0.2	0.2	22,443	488	22,931	2.1
Nov.	1.2	1.0	21,919	1,178	23,097	5.1
Dec.	14.4	15.8	14,152	4,491	18,643	24.1
Jan.	56.6	52.7	7,769	12,352	20,121	61.4
Feb.	73.8	75.0	4,622	13,981	18,603	75.2
Mar.	90.1	89.5	2,072	16,654	18,726	88.9
Apr.	97.4	96.2	849	18,056	18,905	95.5
May	99.5	99.4	84	20,386	20,470	99.6
June	50.4	68.8	5,154	15,653	20,807	75.2
Total	35.5	37.4	146,697	108,162	254,859	42.4

(a) Includes small volumes of fresh cabbage imported for processing.

Source: Derived from Statistics Canada and Agriculture Canada data.

Cabbage: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Netherlands</u>	<u>Cuba</u>	<u>Other</u>	<u>Total</u>
- thousand pounds -						
1966	73,437	517	50	24	-	74,028
1967	83,224	1,286	-	-	-	84,510
1968	81,315	201	-	-	-	81,516
1969	80,292	36	-	-	-	80,328
1970	80,559	-	80	-	-	80,639
Average 1966-70	79,765	408	26	5	-	80,204
1971	84,590	-	382	-	-	84,972
1972	95,916	-	1,070	-	-	96,987
1973	110,377	-	1,994	-	1	112,372
1974	112,752	31	196	-	3	112,982
1975	115,643	-	1,051	-	-	116,694
Average 1971-75	103,856	6	938	-	1	104,801

Source: Statistics Canada.

Cabbage: Imports by Province and Region, 1966-75

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	7,857	7,859	8,834	10,537	10,282	10,113
Nfld.	3,637	3,781	3,628	4,033	4,261	3,059
P.E.I.	238	178	213	197	235	198
N.S.	2,162	1,525	1,589	2,150	1,958	4,022
N.B.	1,819	2,375	3,404	4,157	3,828	2,833
Central Region	49,805	52,965	63,090	72,426	70,623	75,254
Que.	19,433	20,753	27,056	34,596	31,017	32,166
Ont.	30,372	32,212	36,034	37,831	39,606	43,088
Western Region	22,542	24,148	25,063	29,409	32,076	31,327
Man.	4,899	5,176	4,511	6,668	7,557	9,060
Sask.	2,970	3,091	2,891	3,180	3,377	4,066
Alta.	6,665	7,261	8,410	7,639	8,394	8,924
B.C.	8,007	8,620	9,251	11,922	12,749	9,277
Canada	80,204	84,972	96,987	112,372	112,982	116,694

Source: Statistics Canada.

Cabbage: Imports by Month, Crop Years, 1966-70 to 1974-75

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-74</u>	<u>%</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
- thousand pounds -								
July	2,531	3.1	3,876	3.6	2,006	2,448	3,182	7,868
Aug.	353	0.4	686	0.6	97	909	434	1,302
Sept.	47	0.1	363	0.3	38	563	186	665
Oct.	32	*	488	0.5	30	544	118	1,258
Nov.	189	0.2	1,178	1.1	123	3,413	683	493
Dec.	2,461	3.0	4,491	4.2	2,957	5,780	5,112	4,113
Jan.	8,323	10.1	12,352	11.4	8,261	16,263	10,720	14,165
Feb.	10,598	12.9	13,981	12.9	10,030	15,357	12,543	17,994
Mar.	13,682	16.6	16,654	15.4	18,098	17,875	14,057	16,587
Apr.	15,949	19.4	18,056	16.7	16,734	17,172	19,157	19,160
May	15,805	19.2	20,386	18.8	16,060	21,715	24,068	19,702
June	12,451	15.1	15,653	14.5	14,147	14,274	16,738	17,452
Total	82,420	100.0	108,162	100.0	88,579	116,314	106,998	120,758

Source: Statistics Canada.

Cabbage: Percentage Distribution of Imports from United States,
by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Florida</u>	<u>Texas</u>	<u>Arizona</u>	<u>Others</u>	<u>Total</u>
	- per cent -					
<u>1972</u>						
Atlantic Region	49.9	8.9	38.5	2.0	0.7	100.0
Central Region	21.4	22.6	37.5	2.0	16.5	100.0
Western Region	76.8	0.2	21.0	0.2	1.8	100.0
Canada	38.8	15.5	32.6	1.4	11.7	100.0
<u>1973</u>						
Atlantic Region	8.6	11.6	60.8	12.6	6.4	100.0
Central Region	7.1	25.4	53.7	1.9	11.9	100.0
Western Region	71.6	1.2	24.5	1.6	1.1	100.0
Canada	25.6	18.1	45.5	2.1	8.7	100.0
<u>1974</u>						
Atlantic Region	20.6	12.8	32.5	14.7	19.4	100.0
Central Region	8.9	25.8	39.0	2.9	23.4	100.0
Western Region	71.3	0.5	21.4	2.3	4.5	100.0
Canada	27.7	18.0	33.6	3.0	17.7	100.0

Source: Agriculture Canada.

Cabbage: Exports by Country of Destination, 1966-1974^(a)

<u>Year</u>	<u>United States</u>	<u>Bermuda</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -				
1966	1,471	-	576	2,047
1967	1,028	-	297	1,325
1968	2,125	4	365	2,494
1969	880	1	316	1,197
1970	1,235	-	511	1,746
Average 1966-70	1,348	1	413	1,762
1971	2,588	37	336	2,961
1972	1,714	9	50	1,773
1973	5,557	6	35	5,598
1974	707	7	23	737
Average 1971-74	2,642	15	111	2,767

^(a) June 1 to March 31.

Source: Agriculture Canada.

Appendix Table 10

Cabbage: Monthly Storage Holdings, on the 1st of the
Month, 1971-72 to 1974-75

	<u>Maritime Region</u>	<u>Quebec</u>	<u>Ontario</u>	<u>Central Region</u>	<u>Prairies</u>	<u>British Columbia</u>	<u>Western Region</u>	<u>Canada</u>
	- thousand pounds -							
<u>1971-72</u>								
Nov.	3,421	3,205	1,210	4,415	1,846	2,660	4,506	12,342
Dec.	4,023	2,444	1,743	4,187	1,276	1,164	2,440	10,650
Jan.	1,908	2,016	1,526	3,542	352	269	621	6,071
Feb.	834	1,095	772	1,867	441	169	610	3,311
Mar.	234	919	630	1,549	294	194	488	2,271
Apr.	146	1,201	288	1,489	210	222	432	2,067
May	109	591	265	856	302	245	547	1,512
<u>1972-73</u>								
Nov.	2,211	3,790	2,535	6,325	4,474	1,924	6,398	14,934
Dec.	3,339	2,010	2,306	4,316	2,608	1,168	3,776	11,431
Jan.	1,783	1,143	1,954	3,097	799	238	1,037	5,917
Feb.	232	700	1,018	1,718	466	161	627	2,577
Mar.	141	451	431	882	273	174	447	1,470
Apr.	88	317	388	705	311	385	696	1,489
May	99	550	375	925	342	172	514	1,538
<u>1973-74</u>								
Nov.	2,147	2,992	2,491	5,483	2,215	2,264	4,479	12,109
Dec.	3,952	4,569	3,690	8,259	794	2,866	3,660	15,871
Jan.	2,072	3,308	3,524	6,832	424	2,316	2,740	11,644
Feb.	1,072	2,840	1,736	4,576	368	983	1,351	6,999
Mar.	325	680	970	1,650	365	241	606	2,581
Apr.	138	361	524	885	335	175	510	1,533
May	81	64	382	446	457	244	701	1,228
<u>1974-75</u>								
Nov.	2,162	3,178	2,300	5,478	1,718	6,370	8,088	15,728
Dec.	5,577	3,364	2,807	6,171	1,209	2,607	3,816	15,564
Jan.	3,469	1,903	1,014	2,917	588	1,582	2,170	8,556
Feb.	1,882	1,039	821	1,860	341	375	716	4,458
Mar.	1,154	689	513	1,202	397	316	713	3,069
Apr.	298	41	621	662	366	234	600	1,560
May	252	91	355	446	529	176	705	1,403
<u>Average 1971-74</u>								
Nov.	2,485	3,291	2,134	5,425	2,563	3,305	5,868	13,778
Dec.	4,223	3,097	2,637	5,733	1,472	1,951	3,423	13,379
Jan.	2,308	2,093	2,005	4,097	541	1,101	1,642	8,047
Feb.	1,005	1,419	1,087	2,505	404	422	826	4,336
Mar.	464	685	636	1,321	332	231	564	2,348
Apr.	168	480	455	935	306	254	560	1,662
May	135	324	344	668	408	209	617	1,420

Source: Agriculture Canada.

**Cabbage: Weekly Wholesale to Retail Prices at Halifax,
Montreal and Toronto, 1974**

Week Ending	Halifax			Montreal			Toronto		
	Fla.	Tex.	N.S.	Fla.	Tex.	Que.	Tex.	Ont.	
	- bag	50 lb.	-	ctn.	ctn.	bag - ctn.	w.b.	bag	ctn. 16s
				- 50 lb.	-	12-16s	- 50 lb.	-	
- cents per pound -									
Jan.	4		11.0		10.3	7.0			6.3
	11		11.0		9.5	7.3	10.8 (a)		5.5
	18		11.0	8.8	9.3	7.3	9.3 (a)		5.5
	25		11.0	8.5	8.5	6.3	8.3 (a)		5.5
Feb.	1		11.0	9.3	9.3	5.8	8.5 (a)		5.5
	8		11.0	10.0	10.0	5.8	8.0 (b)		5.5
	15		11.0	10.5	10.5	5.8	9.0 (b)		6.0
	22		11.0	11.0	11.0	6.3	10.3 (b)		7.3
Mar.	1	14.0	11.0	11.0	11.0	6.3	10.3 (b)		7.3
	8	14.0	11.0	11.0		6.3	9.8 (c)		7.3
	15	13.6		10.5	10.5	6.5	8.8 (c)		7.3
	22	13.2		10.0	9.8	6.5	7.3 (c)		6.3
	29	12.8		9.3	9.5	6.5	7.8 (d)	7.3	5.8
Apr.	5	12.8	12.8	9.3	9.3	6.3	8.8 (d)	7.3	
	12	11.0	11.0	9.3	9.3		8.8 (d)	7.3	
	19	11.0	11.0	9.3	8.8		8.8 (d)	7.4	
	26	12.0	12.0	9.8	9.3		9.8 (d)	9.0	
May	3	12.5	12.5	9.5	9.5		9.8 (d)	9.3	
	10	13.5	13.5	11.0			9.3 (d)	8.3	
	17	13.5	13.5	11.8			11.3 (d)	10.3	
	24	14.4	14.4	12.0	12.0		10.8 (d)	10.0	
	31	15.0	15.0	11.0	11.0		10.8 (d)	9.3	
June	7	16.0	16.0	10.8			10.3 (d)	9.8	
	14	14.5	14.5	9.9			10.3 (d)	9.8	
	21	12.0	12.0	9.8			10.3 (d)		
	28	11.0	11.0						
July	5	11.6	11.6						
	12	13.5	13.5						
	19		13.0			4.0			
	26		13.0			3.8			
Aug.	2		12.0			3.5			5.5
	9		12.0			3.5			5.0
	16		11.0			3.3			4.8
	23		10.5			3.8			4.3
	30		10.5			3.3			4.3
Sept.	6		8.0			3.3			4.3
	13		8.0			3.3			4.3
	20		8.0			3.0			4.3
	27		8.0			2.8			4.5
Oct.	4		6.5			2.8			5.3
	11		6.5			2.8			5.8
	18		6.5			2.8			5.3
	25		6.5			2.8			6.0
Nov.	1		6.5			2.8			5.8
	8		6.5			2.8			5.3
	15		6.5			2.8			5.3
	22		6.5			3.5			5.5
	29		6.5			4.3			6.0
Dec.	6		6.5		11.3	5.0	10.8		8.0
	13		6.5			4.5	11.3		8.0
	20		6.5	11.8	11.8	5.2	10.8		8.3
	27		6.5	11.6	11.6	5.2			8.3

(a) Includes California w/b crates at 50 pounds.

(b) Includes California cartons of 16's at 50 pounds.

(c) Includes Florida cartons of 16's at 50 pounds.

(d) Includes Florida cartons of 22-24's at 50 pounds.

Source: Agriculture Canada.

**Cabbage: Weekly Wholesale to Retail Prices at Winnipeg
and Vancouver, 1974**

Week Ending		Winnipeg			Vancouver	
		Cal.	Tex.	Man.	Cal.	B.C.
		ctn.	ctn. bag - 50 lb. -	bag	- ctn. 50 lb. -	-
- cents per pound -						
Jan.	4	10.8	10.8	8.6	11.3	10.3
	11	11.9	11.9	8.3	11.7	10.7
	18	11.2	11.2	8.0	11.9	10.7
	25	10.4	10.4	8.8	11.9	10.9
Feb.	1	10.3	10.3	9.0	10.8	10.7
	8	9.5	9.5	8.8	10.5	9.0
	15	9.8	9.8	8.8	12.3	9.5
	22	11.2	11.2	8.8	12.2	9.0
Mar.	1	11.7		10.0	11.8	9.0
	8	11.7		9.3	11.3	
	15	11.5		8.7	10.6	
	22	11.5		8.1	10.6	
	29	10.2		7.6	10.2	
Apr.	5	9.2		7.6	9.8	
	12	8.8		7.5	9.8	
	19	9.0		7.4	9.5	
	26	9.2		7.9	9.8	
May	3	9.9		8.4	12.5	
	10	10.5		8.0	12.2	
	17	11.0		8.7	11.2	
	24	14.5		11.7	13.8	
	31	17.0	11.8		15.5	
June	7	16.6	11.5		15.2	
	14	14.5	11.3		13.3	
	21	10.5	12.0		12.0	
	28	10.4	12.0		12.0	
July	5	12.8	11.3			
	12	12.4	11.3	11.3		
	19	12.0		11.3		
	26	12.0		11.3		
Aug.	2			11.5		
	9			10.5		
	16			9.3		
	23			9.5		12.0
	30			9.3		11.9
Sept.	6		9.0 (a)	9.3		11.9
	13		9.0 (a)	9.0		11.7
	20		8.7 (a)	9.1		11.8
	27		9.2 (a)	9.1		11.7
Oct.	4		9.2 (a)	9.1		11.7
	11		9.6 (a)	9.1		12.1
	18		9.6 (a)	9.0		11.7
	25		9.9 (a)	10.4		11.7
Nov.	1		9.9 (a)	10.0		11.7
	8		9.9	10.0		11.7
	15		9.8	9.8		11.7
	22		9.6	9.6		11.7
	29		10.1	9.0		11.7
Dec.	6		9.8	8.5		11.7
	13		9.3	7.8		12.3
	20		10.7	7.5		12.3
	27		10.7			12.3

(a) Minnesota, cartons at 50 pounds.

Source: Agriculture Canada.

Appendix Table 12a

Imported United States Cabbage: Total Landed Cost; Cost f.o.b.; Freight,
Brokerage and Other Costs; Cost of Duty;
Toronto; Selected Data by Month, 1972-1974

Month of Shipment	1972					1973					1974					
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	
												</				

Source: Tariff Board Survey.

Imported United States Cabbage: Total Landed Cost; Cost f.o.b.; Freight; Brokerage and Other Costs; Cost of Duty; Winnipeg and Vancouver; Selected Data by Month, 1974										
Month of Shipment	Winnipeg					Vancouver				Total Landed Cost
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	
- cents per pound -										
January	Calif. Fla. "	4.6 3.0 3.7	4.4 3.7 3.7	0.9 0.9 0.9	9.9 7.6 8.3	Calif. " -	5.0 4.6 -	2.9 2.5 -	0.9 0.9 -	8.8 8.0 -
February	-	-	-	-	-	Calif.	3.6	2.4	-	6.0
March	Calif. Texas - -	3.6 3.5 - -	5.0 3.7 - -	- - - -	8.6 7.2 - -	Calif. " " "	5.1 5.6 3.4 4.1	2.6 2.4 2.4 2.3	- - - -	7.7 8.0 5.8 6.4
April	- - - -	- - - -	- - - -	- - - -	- - - -	Calif. " " Ariz.	3.2 2.5 5.4 3.2	2.4 2.3 2.4 3.3	- - - -	5.6 4.8 7.8 6.5
May	- - - - -	- - - - -	- - - - -	- - - - -	- - - -	Calif. " " "	4.1 4.7 7.0 5.7 4.2	2.4 2.9 2.4 2.5 2.4	- - - - -	6.5 7.6 9.4 8.2 6.6
June	- - - -	- - - -	- - - -	- - - -	- - - -	Calif. " " "	5.7 6.5 5.7 8.0	3.1 2.9 4.2 2.9	- - - -	8.8 9.4 9.9 10.9
December	Texas Ariz.	6.0 5.9	4.4 5.5	0.9 0.9	11.3 12.3	- -	- -	- -	- -	- -

Source: Tariff Board Survey.

Source: Tariff Board Survey.

Appendix Table 13a

Cabbage: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound,
United States, by States, 1966-1974

	Average 1966-70	1971	1972	1973	1974	Average 1971-74
			- Acreage -			
California		10,000	10,400	10,200	9,900	10,125
Florida		18,300	17,700	17,000	17,200	17,550
Texas		19,900	18,400	22,100	17,900	19,575
New York		9,900	10,000	11,000	10,500	10,350
North Carolina		6,700	7,400	7,600	7,200	7,225
Other States		43,340	40,970	41,900	42,920	42,283
Total	110,380	108,140	104,870	109,800	105,620	107,108
			- Production '000 -			
California		222,300	229,100	220,700	220,100	223,050
Florida		377,200	370,000	406,700	418,600	393,125
Texas		336,100	338,000	442,600	358,800	368,875
New York		391,900	315,500	355,000	397,700	365,025
North Carolina		105,400	131,100	130,000	119,700	121,550
Other States		939,900	868,100	856,000	959,800	905,950
Total	2,325,620	2,372,800	2,251,800	2,411,000	2,474,700	2,377,575
			- Average Yield lb. -			
California		22,230	22,029	21,637	22,232	22,030
Florida		20,612	20,904	23,924	24,337	22,400
Texas		16,889	18,370	20,027	20,045	18,844
New York		39,586	31,550	32,273	37,876	35,268
North Carolina		15,731	17,716	17,105	16,625	16,824
Other States		21,687	21,189	20,430	22,363	21,426
Total	21,069	21,942	21,472	21,958	23,430	22,198

Cabbage: Acreage, Production Yield per Acre, Farm Value and Farm Value per Pound,
United States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
			- Farm Value \$'000 -			
California		8,601	7,442	11,633	9,142	9,204
Florida		15,242	14,996	23,821	17,557	17,904
Texas		14,663	13,620	23,754	16,883	17,230 (a)
New York		9,266 (a)	9,837 (a)	11,334 (a)	11,402 (a)	10,460 (a)
North Carolina		3,246	4,129	8,327	4,727	5,107
Other States		<u>27,146</u>	<u>28,334</u>	<u>42,547</u>	<u>35,698</u>	<u>33,431</u>
Total	68,856	78,164	78,358	121,416	95,409	93,337
			- Farm Value ¢ per lb. -			
California		3.9	3.2	5.3	4.2	4.1
Florida		4.0	4.1	5.9	4.2	4.6
Texas		4.4	4.0	5.4	4.7	4.7
New York		2.4	3.1	3.2	2.9	2.9
North Carolina		3.1	3.1	6.4	3.9	4.2
Other States		2.9	3.3	5.0	3.7	3.7
Total	3.0	3.3	3.5	5.0	3.9	3.9

(a) New York storage crop excluded in computing value.

Source: U.S. Department of Agriculture.

Appendix Table 13b

Cabbage: Fresh Market Acreage, Production, Yield
per Acre, Farm Value and Farm Value per
Pound, United States, 1966-1974

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>
- Acreage -						
Total	97,708	96,680	94,070	96,760	91,710	94,805
- Production '000 lb. -						
Total	1,856,256	1,902,900	1,855,600	1,972,700	1,911,800	1,910,750
- Average Yield lb. -						
Total	18,998	19,682	19,726	20,388	20,846	20,155
- Farm Value \$'000 -						
Total	64,582	74,053	74,113	115,992	86,689	87,712
- Farm Value ¢ per lb. -						
Total	3.5	3.9	4.0	5.9	4.5	4.6

Source: U.S. Department of Agriculture.

Appendix Table 13c

Cabbage: Processing^(a) Market, Acreage, Production,
Yield per Acre, Farm Value and Farm Value
per Pound, United States, by States, 1966-1974

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>
- Acreage -						
New York		3,400	3,400	4,300	4,500	3,900
Ohio		1,200	1,200	1,400	1,100	1,225
Wisconsin		3,600	3,300	3,800	4,200	3,725
Other States		<u>3,260</u>	<u>2,900</u>	<u>3,540</u>	<u>4,110</u>	<u>3,453</u>
Total	12,672	11,460	10,800	13,040	13,910	12,303
- Production '000 lb. -						
New York		167,300	127,800	160,500	212,600	167,050
Ohio		59,500	47,300	44,900	52,000	50,925
Wisconsin		138,100	122,500	115,100	137,500	128,300
Other States		<u>105,000</u>	<u>98,600</u>	<u>117,800</u>	<u>160,800</u>	<u>120,550</u>
Total	469,364	469,900	396,200	438,300	562,900	466,825
- Average Yield lb. -						
New York		49,206	37,588	37,326	47,244	42,833
Ohio		49,583	39,417	32,071	47,273	41,571
Wisconsin		38,361	37,121	30,289	32,738	34,443
Other States		32,209	34,000	33,277	39,124	34,912
Total	37,039	41,003	36,685	33,612	40,467	37,944
- Farm Value \$'000 -						
New York		1,297	1,559	2,159	3,253	2,067
Ohio		550	459	503	861	593
Wisconsin		1,195	1,201	1,370	1,987	1,438
Other States		<u>1,069</u>	<u>1,026</u>	<u>1,392</u>	<u>2,619</u>	<u>1,527</u>
Total	4,274	4,111	4,245	5,424	8,720	5,625
- Farm Value ¢/lb. -						
New York		0.8	1.2	1.3	1.5	1.2
Ohio		0.9	1.0	1.1	1.7	1.2
Wisconsin		0.9	1.0	1.2	1.4	1.1
Other States		1.0	1.0	1.2	1.6	1.3
Total	0.9	0.9	1.1	1.2	1.5	1.2

(a) For sauerkraut.

Source: U.S. Department of Agriculture.

Appendix Table 14

Cabbage: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year (a)	Atlantic Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	July 6	Jan. 30	208	June 8	Jan. 4	210	July 5	Jan. 30	209
1967	July 26	Jan. 22	180	June 8	Jan. 4	210	June 20 Oct. 26	Sept. 14 Feb. 4	86 101
1968	July 19	Feb. 14	210	May 30	Dec. 26	210	June 20 Sept. 25	Aug. 13 Feb. 27	54 155
1969	July 22	Feb. 17	210	June 10	Jan. 16	210	June 18 Nov. 20	Sept. 23 Feb. 16	97 88
1970	Sept. 10	Feb. 16	159	June 9	Dec. 29	203	July 1 Dec. 2	Oct. 20 Feb. 10	111 70
1971	Aug. 27	Feb. 14	171	June 8	Jan. 4	210	June 18	Jan. 13	209
1972	Aug. 9	Feb. 12	187	June 7	Jan. 3	210	June 20 Nov. 10	Oct. 20 Jan. 26	122 77
1973	July 6	Feb. 1	210	June 15	Jan. 11	210	June 29	Jan. 25	210
1974	Aug. 16	Feb. 28	196	June 12	Jan. 8	210	July 16	Feb. 11	210
1975	Aug. 29	Mar. 25	208	June 10	Jan. 5	209	July 22	Feb. 16	209

(a) Government fiscal year commencing April 1st; ending March 31st of following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Cabbage: Dutiable Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Imports			Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%			
1966	74,028	28,150	38.0	4.3	0.9	20.9
1967	84,510	31,248	37.0	4.1	0.9	22.0
1968	81,516	32,186	39.5	4.2	0.9	21.4
1969	80,328	28,684	35.7	4.0	0.9	22.5
1970	80,639	35,255	43.7	5.8	0.9	15.5
Average 1966-70	80,204	31,104	38.8	4.5	0.9	20.0
1971	84,972	34,763	40.9	4.5	0.9	20.0
1972	96,987	38,855	40.1	4.3	0.9	20.9
1973	112,372	73,311	65.2	4.3	0.9	20.9
1974	112,982	93,083	82.4	5.2	0.9	17.3
1975	116,694	102,358	87.7	6.3	0.9	14.3
Average 1971-75	104,801	68,474	65.3	4.6	0.9	19.6

Source: Statistics Canada.

CARROTS

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CARROTS

The carrot (Daucus carota var. sativa) is a native of Europe and adjoining portions of Asia. French seedsmen were responsible for the early development of the carrot. In the short space of a few years, they developed carrots with roots similar in appearance to the well-known varieties of the present day from the thin wire-like roots of the wild carrot.

Carrots can be grown throughout the southern regions of Canada and as far north as the Peace River region of the West. Although a relatively cool season crop, carrots fail to produce normal roots if the soil temperature remains at 5°C to 7°C. Many home gardens include carrots. Since carrots are a "storable" crop which may be kept in a simple type of storage for several months after harvest, with little deterioration, they have been a traditional source of food in Canada. Because carrots are high in Vitamin A (10-11,000 international units per 100 grams of edible portion, one of the highest of all food crops),⁽¹⁾ this vegetable is highly regarded as a health food and continues to enjoy good demand, in both fresh and processed forms, all year around. Per capita consumption in Canada has remained relatively stable over the past 15 years.

Unlike many vegetables grown in Canada, for best development the carrot requires deep, loose, well-drained muck soils with high soil moisture content in order to produce long, straight roots. If grown on comparatively heavy soils, carrots are likely to produce abundant leaf growth and forked roots. A large proportion of commercially grown carrots, particularly in Ontario and Quebec, are produced in muck soils because of the light texture of such soils.

At one time, carrot varieties were selected and grown for their sweetness and crispness, the Nantes type being particularly desirable. However, because of an almost total conversion to mechanical harvesting, there has been a trend away from the more tender, sweeter carrots to the strong-necked, long-tapered types such as Imperator, e.g., Gold Pak, Hipak, Hilite Elite. Canadian carrots, as a general rule, are less richly coloured than those grown in the warmer regions of the United States in that the temperatures, especially in our muck areas, are not high enough to produce the same colour.

GROWING, HARVESTING AND MARKETING

Carrots for the fresh market are usually planted between April 15 and May 5 in central Canada and require 60 to 80 days to maturity. Carrots for processing are planted in May and June, 65 to 110 days being required to maturity. The carrot has traditionally been a labour-intensive crop requiring much hand labour for weed control and harvesting. A number of recent technical developments have, however, greatly reduced hand labour and resulted in improved production efficiency. The introduction of precision seeding in 1971 provided optimum spacing without hand thinning and resulted in the growing of more uniform disease-free carrots. Precision seeding involves the placing of

(1) United States Department of Agriculture, Agriculture Handbook No. 8, December, 1963.

each seed singly in the ground according to a pre-arranged system of holes in the belt of the seeder, permitting the plants to be spaced exactly the right distance apart. This has been made possible through the development of a method of coating the seed with a water soluble substance to ensure smooth easy flowing. With precision seeding, the resulting stands of carrots grow uniformly without the usual competitive stress resulting from the clumping and bunching of plants under the traditional random seeding method.

The development of very selective herbicides, which has entirely eliminated hand weeding of carrots, has had a marked effect on labour requirements and thus on the cost of production of carrots. Whereas, a few years ago, carrots were a very labour-intensive crop, today, in Canada, carrots are not only no longer hand-thinned or hand-weeded but (except for bunching carrots) are also entirely mechanically harvested, i.e., dug, pulled, topped and elevated into pallet boxes by one machine, and subsequently, fork-lifted into storages located on farms.

Technical improvements in the storage facilities used for carrots have resulted in a great improvement in the quality of storage carrots and an increase in the storage period almost until the new crop of Canadian grown carrots are available. These technical improvements relate to the maintenance of optimum temperature and humidity and include the use of specially engineered "jacketed" storages, which provide for a more effective circulation of air through the stored product. Improved storage has lengthened the marketing period in which domestically grown carrots are available.

Storage technologists express the opinion that, although additional costs are involved, with the use of refrigerated "jacketed" storage, carrots can be stored without deterioration through to July, that is, until the following crop is ready for harvest. At present, however, almost all of the domestic crop is sold by the end of April. The sale of "bunched" carrots with the green tops still attached has been replaced largely by that of topped and washed carrots, pre-packaged in one-, two-, three- or five-pound cello packs. Bunched carrots, with tops attached, are still important, particularly during the winter and spring, the tops indicating freshness and possibly a superior quality to that of packaged storage carrots. As for many other products, the pre-packaging of carrots in consumer-sized packages has now become almost universal. While this results in savings to the retailers both in labour and wastage, the cost of such pre-packaging is reflected in substantially higher prices.

Since 1970 a market has appeared in Canada for baby carrots, or "mini" carrots, a variety of carrot which normally does not exceed $3\frac{1}{2}$ inches in length. These are sold principally as a gourmet item in cans or frozen packs although some fresh market sales also occur. Baby carrots are grown, both for the fresh market and for processing, in Quebec and Ontario; however, the cultivation of this vegetable is essentially in a developmental stage. Agriculture Canada, in recent years, has conducted a number of field experiments with baby carrots, particularly with respect to seeding and harvesting. Such carrots can be successfully harvested by mechanical means, using equipment developed for radish harvesting. Funds for growing and marketing research for

this new variety of carrots have been provided under the New Crop Development Fund of Agriculture Canada. Because of the relatively low yield and high labour requirements, production costs for baby carrots are evidently much higher than those for standard varieties; per pound prices for these carrots were indicated to be three to four times those for standard carrots. According to information provided to the Board, it is probable that baby carrots could be grown in almost all regions in Canada where full-sized varieties are grown.

ACREAGE, PRODUCTION AND FARM VALUE

Total Canadian carrot production has increased since 1961, averaging 348 million pounds for the 1971-74 period compared to 310 million pounds for the period 1961-65. Record production of 385 million pounds was obtained in 1974, surpassing the previous peak of 380 million pounds in 1970.

Carrots are grown in substantial quantities in all regions; however, growers in Quebec and Ontario at present account for approximately four-fifths of total domestic production. Although Quebec was, prior to 1970, the most important carrot producing province, the Quebec crop has declined in more recent years with Ontario now being the most important producer. A comparison of 1961-65 with 1971-74 shows that production growth has been most pronounced in the Maritime region followed by the Prairie Provinces; Quebec production has declined by some 7 per cent while that of Ontario has risen by some 18 per cent. The annual carrot crop in British Columbia has remained stable in recent years at about 10 million pounds.

The reported acreage planted to carrots has increased by about 2,500 from the 1961-65 average with most of this additional acreage occurring in Quebec. This province has large areas of muck soils, with carrots being principally grown in the l'Assomption area and in the muck soils south of Montreal. Despite its significant increase in acreage planted to this crop, Quebec production has declined as a result of diminishing yields. Ontario's carrot acreage, presently about the same as that in 1961-65, is largely in the Holland Marsh area. Carrot acreage in the Maritime Provinces, which has nearly doubled between 1961-65 and 1971-74, is largely centred in the Annapolis Valley growing area. In the western region, acreage increased sharply in southern Alberta but declined slightly in British Columbia's Fraser Valley.

The average yield per acre obtained in carrot production has tended to decline in recent years. Current yields for Canada as a whole, at about 22,600 pounds per acre, were less than those recorded in 1961-65 (24,000 pounds per acre) and in 1966-70 (26,500 pounds per acre). This decline was entirely the result of lower yields in Quebec; average yields have tended to increase in all other regions. The average yield for Quebec, only 14,500 pounds per acre in 1971-74, was lower than the Canadian average and was only 36 per cent of that attained in Ontario. Data relating to larger commercial carrot farms indicate, however, that the disparity between yields of carrots grown commercially in Quebec and Ontario is not nearly as great as is suggested by the published statistics presented in Table 1.

Table 1: Carrots: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Maritimes	560	696	830	950	1,100	1,500	1,095	+ 95.5
Quebec	7,132	7,292	8,500	8,870	8,950	9,650	8,993	+ 26.1
Ontario	3,846	3,566	3,780	4,130	3,750	3,660	3,830	+ 0.4
Prairies	830	928	1,120	1,160	950	720	987	+ 18.9
B.C.	508	498	460	480	480	440	465	- 8.5
Canada	12,876	12,980	14,690	15,590	15,230	15,970	15,370	+ 19.4
- Production, '000 lb. -								
Maritimes	8,624	15,174	16,813	23,765	24,139	34,358	24,769	+ 187.2
Quebec	141,004	155,648	160,650	107,327	110,085	145,715	130,944	- 7.1
Ontario	132,965	148,162	118,237	156,472	180,724	172,626	157,015	+ 18.1
Prairies	16,539	14,710	23,660	31,810	23,090	21,200	24,940	+ 50.8
B.C.	10,586	10,420	10,475	9,149	11,198	10,793	10,404	- 1.7
Canada	309,719	344,113	329,835	328,523	349,236	384,692	348,072	+ 12.4
- Average Yield, lb. -								
Maritimes	15,400	21,802	20,257	25,016	21,945	22,905	22,620	+ 46.9
Quebec	19,771	21,345	18,900	12,100	12,300	15,100	14,561	- 26.4
Ontario	34,572	41,549	31,280	37,887	48,193	47,166	40,996	+ 18.6
Prairies	19,927	15,851	21,125	27,422	24,305	29,444	25,268	+ 26.8
B.C.	20,839	20,924	22,772	19,060	23,329	24,530	22,374	+ 7.4
Canada	24,054	26,511	22,453	21,073	22,931	24,088	22,646	- 5.9
- Farm Value, \$'000 -								
Maritimes	357	526	633	742	672	632	670	+ 87.7
Quebec	2,636	2,423	3,020	2,791	2,972	4,080	3,216	+ 22.0
Ontario	2,424	3,303	2,925	3,859	3,747	6,045	4,144	+ 71.0
Prairies	472	498	1,245	1,498	1,145	1,479	1,342	+ 184.3
B.C.	448	523	625	504	985	835	737	+ 64.5
Canada	6,337	7,272	8,448	9,394	9,521	13,071	10,109	+ 59.5
- Farm Value, ¢ per lb. -								
Maritimes	4.1	3.5	3.8	3.1	2.8	1.8	2.7	- 34.1
Quebec	1.9	1.6	1.9	2.6	2.7	2.8	2.5	+ 31.6
Ontario	1.8	2.2	2.5	2.5	2.1	3.5	2.6	+ 44.4
Prairies	2.9	3.4	5.3	4.7	5.0	7.0	5.4	+ 86.2
B.C.	4.2	5.0	6.0	5.5	8.8	7.7	7.1	+ 69.0
Canada	2.0	2.1	2.6	2.9	2.7	3.4	2.9	+ 45.0

Source: Statistics Canada.

In view of the declining average yield, it is evident that the increase in Canadian carrot production since 1961-65 has resulted from the additional acreage planted to this crop. Given the probability of significant yield improvements in Quebec and assuming no important acreage reductions, it is likely that domestic carrot production will continue to rise in the future.

The total annual value of the Canadian carrot crop averaged \$10.1 million during the period 1971-74, compared to \$6.3 million in 1961-65. The farm value of carrots per pound varies widely between regions, and from year to year, prices being considerably higher in British Columbia and in the Prairie region. The average price per pound to the grower has risen steadily in all regions except the Maritime Provinces.

The data presented in Table 1 include production and acreage respecting baby carrots; little separate statistical information is available concerning this new carrot variety.⁽¹⁾ Very few Canadian growers produce baby carrots, and both production and acreage for baby carrots may be taken as being negligible.

SUPPLY AND DISPOSITION

The bulk of Canada's carrot production is sold to the domestic fresh market; however, significant volumes of production are used for domestic processing and are exported. Table 2 sets forth supply and disposition data, for crop years, including imports of processed carrots in fresh equivalent weight. Based on 1971-74 averages, 63 per cent of Canada's carrot crop was sold on the domestic fresh market, 23 per cent of production was used by domestic processors and 14 per cent of production was exported.⁽²⁾ Over the period 1961-74 the proportion of Canada's increased carrot crop taken by domestic processors rose from 18 per cent in 1961-65 to about 23 per cent in 1971-74. There was a corresponding decline in the share of production sold to domestic fresh markets. Fresh exports, as a proportion of production, remained relatively stable, ranging between 13 and 16 per cent.

Although Canada exports substantial volumes of fresh carrots, annual fresh imports have nonetheless exceeded exports in every year since 1961. While Canada is thus a net importer of carrots, the deficit position in this fresh product has narrowed considerably since 1961. In 1961-65, for example, this annual deficit averaged some 37 million pounds compared to the much lower figure of 18.7 million pounds for the 1971-74 period. According to confidential data received, imports of fresh carrots may be assumed as being entered for Canada's fresh market although, in certain years, fresh carrots may also be imported for processing purposes. Despite such imports for processing in certain years, Canada appears to rely basically on domestic production for carrots for processing.

The domestic fresh market is to some extent dependent on imports as a supplemental source of supply. However, reflecting improved storage techniques, Canadian carrot growers have been able to

(1) Baby carrot acreage in Quebec is reported to be 175 acres in 1974 with an average yield per acre of 5,000 pounds.

(2) Selected supply and disposition ratios for the 1961-74 period are presented in Appendix Table 2.

Table 2: Carrots: Supply and Disposition, Canada, Crop Years,
1961-65 to 1971-74

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74	% Change 1961-65 to 1971-74
	- thousand pounds -							
<u>Total Production</u>	309,719	344,113	329,835	328,523	349,236	384,692	348,072	+ 12.4
<u>Total Imports</u>	80,512	84,988	92,685	92,583	81,851	92,937	90,014	+ 11.8
Fresh	78,239	74,287	73,028	69,522	56,674	73,215	68,110	- 12.9
Processed (canned) (a)		2,415	5,290	7,974	7,769	5,456	6,622	..
Processed (frozen) (b)	2,273	8,286	14,367	15,087	17,408	14,266	15,282	+ 572.3
<u>Total Supply Available</u>	390,231	429,101	422,520	421,106	431,087	477,629	438,086	+ 12.3
Available for processing or imported processed	56,570	66,701	81,657	89,061	113,177	127,722	102,904	+ 81.9
From domestic production	54,297	56,000	62,000	66,000	88,000	108,000	81,000	+ 49.2
Imported processed	2,273	10,701	19,657	23,061	25,177	19,722	21,904	+ 863.7
Available for fresh market	332,661	362,400	340,863	332,045	317,910	349,907	335,182	+ 0.8
From domestic production	255,422	288,113	267,835	262,523	261,236	276,692	267,072	+ 4.6
Imported	78,239	74,287	73,028	69,522	56,674	73,215	68,110	- 12.9

Table 2 (concl.): Carrots: Supply and Disposition, Canada, Crop Years,
1961-65 to 1971-74

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74	% Change 1961-65 to 1971-74
- thousand pounds -								
Total Exports								
Fresh (d)	41,597	56,539	49,895	45,514	46,462	55,744	49,404	+ 18.8
Processed (e)	41,465 132	56,349 190	49,895 ..	45,514 ..	46,462 ..	55,744 ..	49,404 ..	+ 19.1 ..
Total Domestic Disappearance	348,634	372,562	372,625	375,592	384,625	421,885	388,682	+ 11.5
Consumed in processed form	56,438	66,511	81,657	89,061	113,177	127,722	102,904	+ 82.3
From domestic production	54,165	55,810	62,000	66,000	88,000	108,000	81,000	+ 49.5
Imported processed	2,273	10,701	19,657	23,061	25,177	19,722	21,904	+ 863.7
Fresh Market Consumption	292,196	306,051	290,968	286,531	271,448	294,163	285,778	- 2.5
From domestic production	213,957	231,764	217,940	217,009	214,774	220,948	217,668	+ 1.7
Imported	78,239	74,287	73,028	69,522	56,674	73,215	68,110	- 12.9

- (a) Converted to fresh equivalent on the basis of .83 lb. fresh per 1 lb. canned product.
 (b) Converted to fresh equivalent on the basis of 2.70 lb. fresh per 1 lb. frozen product.
 (c) Three-year average omitting 1961-62 and 1962-63.
 (d) Includes small volumes of re-exports.
 (e) Canned carrots converted to fresh equivalent on the basis of .83 lb. fresh per 1 lb. canned product.
 Separate data not available after 1969.
 (f) Average for 1964-65 and 1965-66 only.

Source: Derived from Statistics Canada and Agriculture Canada data.

supply the fresh market over a longer period and thereby increasing their share of domestic fresh market consumption, this share rising from 73 per cent in 1961-65 to 76 per cent in 1971-74.

While Canada's trade deficit in fresh carrots has diminished considerably since 1961, imports of processed carrots in frozen or canned form have increased notably. In terms of fresh product equivalents, such processed imports rose from some 2.3 million pounds in 1961-65 to 21.9 million pounds in 1971-74. Whereas in 1961-65 such imports accounted for only an estimated 4 per cent of carrots consumed in their processed form, imports now comprise 21 per cent of such consumption. It should also be pointed out that the import data presented for carrots in their processed form are probably significantly understated. Such figures do not include carrots included in mixed frozen packs (e.g., carrots and peas), canned mixed vegetable products, canned stews, frozen dinners, etc. Canadian exports of processed carrots are negligible.

Total domestic disappearance of carrots in both fresh and processed forms is estimated at 388.7 million pounds (see Table 2). Carrots consumed in the fresh state (fresh market consumption) in 1971-74 comprised 73.5 per cent of Canadian consumption with the remaining 26.5 per cent being consumed in processed form. Although carrots are thus chiefly consumed in unprocessed form, fresh market consumption, which averaged 306.1 million pounds in 1966-70 and 285.8 million pounds in 1971-74, has tended to decline, reflecting as in most other vegetable products, a growing consumer preference for processed vegetables. Consumption of carrots in processed form nearly doubled between 1961-65 to 1971-74.

The decline in fresh carrot consumption is more evident when viewed on a per capita basis. Per capita consumption of fresh market carrots amounted to about 13.0 pounds in 1971-74 a drop from 15.4 pounds in 1961-65. On the other hand, a minimum estimate for per capita carrot consumption in processed form, would be 4.6 pounds in 1971-74. This is considerably higher than the comparable estimate for 1961-65, of 3.0 pounds.

If imports are viewed on a net basis (imports less exports) it is apparent that Canada is a net importer of carrots in all forms. In the 1971-74 period the average annual deficit was about 40.6 million pounds, or 10.4 per cent of total domestic disappearance. This ratio has remained relatively unchanged, averaging 11.2 per cent in 1961-65. This aggregate comparison disguises, however, a slight trend to greater self-sufficiency in fresh market consumption which has been offset by an increased import share of consumption in the processed form.

Carrots are a storable vegetable. While the larger part of this crop is marketed direct from the field, either to the fresh market or to processors, a substantial quantity of annual carrot production is stored and marketed in the months subsequent to harvesting. The production period for this crop is normally during the four months of July to October, although the production period in some years may extend into November. The marketing season for stored carrots encompasses the six-month period from November to April. Only small volumes of domestically grown carrots are marketed in May and June (see Appendix Table 3). Exports are made both direct from the field during the production

period and also from storage holdings during November to April. The tariff pertaining to carrots provides for the application of a specific duty up to 40 weeks, a period which covers the actual production period in the fall as well as most of the subsequent marketing period for stored carrots in the following winter and spring months.

Based on the 1971-74 average, some 119 million pounds of carrots are stored annually according to storage totals as at the November 1 date each year (see Appendix Table 12). This is equivalent to 44 per cent of carrot production available for the fresh market (available for domestic fresh market sale or for export). Roughly speaking, therefore, 60 per cent of fresh market production is sold direct from the field while 40 per cent is stored. The proportion of fresh market production going into storage has been steadily increasing since 1961. As derived from November 1st storage holdings as a per cent of fresh market production, 32 per cent of such production went into storage during 1961-65 as compared to 39 per cent in 1966-70 and as against 44 per cent for the more current 1971-74 period. This trend to increased storage is a major factor in recent market developments. Improved storage technology has permitted an increasingly larger share of domestic production to be stored and sold in the later months of the marketing season. Storage factors principally underlie the trend pointed out earlier, that Canadian growers have been gaining a greater share of the domestic fresh market; domestically grown carrots are becoming increasingly more competitive with imports of this fresh product. Imports supply the bulk of the domestic fresh market in the months of May, June, and July whereas domestic carrots account for almost all of fresh market demand during September to December, inclusive (Appendix Table 4). While imports have become of more importance in certain months, notably in July and August, as a percentage of domestic consumption, imports have declined steadily in March, April, and May. Increased marketings of the domestically grown product in these later months of the marketing season, which have more than offset sales lost to imports in other months, have on the whole led to a decline in the overall market share held by imported carrots.

Table 3 below summarizes market trends which have taken place in certain months at the end of the marketing season, namely March, April, and May, for domestically produced carrots.

Table 3: Carrots: Domestic Fresh Market Consumption, Months of March, April, and May, 1961-1974

	<u>1961-65</u>	<u>1966-70</u>	<u>1971-74</u>
	- '000 lb. -		
From domestic production	18,614	29,643	38,283
From imports	<u>41,164</u>	<u>39,464</u>	<u>27,074</u>
Fresh market consumption	59,778	69,107	65,357
Domestic sales as per cent of fresh market consumption	31.1	43.9	58.6

Source: Derived from Statistics Canada, Agriculture Canada and National Revenue.

During these months, domestically grown carrots have increased their share of domestic fresh consumption from 31.1 per cent in 1961-65 to 58.6 per cent in 1971-74.

With respect to interregional movement of carrots, the most important trade appears to be from the central region to the Maritime Provinces; Ontario and Quebec carrots meet a significant portion of fresh market demand in Nova Scotia and New Brunswick. Ontario carrots are also sold on fresh markets in the Prairie Provinces. Based on unload data, there is also currently a substantial interprovincial movement between Ontario and Quebec with Ontario on a net basis being a supplier to Quebec markets. British Columbia growers market some 10 per cent of fresh market production in the Prairie Provinces, particularly in Alberta.

IMPORTS

Imports of fresh carrots originate almost entirely in the United States, mainly the growing areas of California, Arizona, and Texas (see Appendix Table 8). California is by some margin the most important single supplier, with imports from this state constituting some 77-80 per cent of all carrot imports in recent years. For the 1972-74 period, imports from California comprised nearly 90 per cent of imports into the western region and three-fourths of imports into the central region. California is an important supplier of carrots to Canada's Atlantic region, although Texas carrots are marketed in this region as well. In California, Texas, and, to a lesser degree, in Arizona, there is a large crop of spring carrots (harvested in January to March). U.S. imports during that time are therefore carrots marketed direct from the field. Such carrots compete to advantage in the Canadian market in the March-July months, even where domestically grown carrots are available, since fresh field carrots are likely to have more consumer appeal than domestic carrots which have been stored for several months.

Fresh carrot imports are highly seasonal in that they essentially serve as a supplement to domestic production during the four-month period when domestically grown carrots are of limited availability. Over three-fourths of all carrot imports occur in the months of April to July, inclusive (see Appendix Table 7). In these months, imported carrots account for the bulk of domestic fresh market consumption (see Appendix Table 4). As described previously, imports in March and April have declined, however, as a result of the increased availability of domestic storage carrots in these two months. The seasonality of carrot imports also tends to differ between regions. In the western region, storage holdings are small and only 65 per cent of imports are in the April-July period as compared to 85 per cent in the Atlantic and central regions.

The composition of fresh market consumption, between domestically grown carrots versus imported carrots, also differs between regions. In the Atlantic Provinces and in the western region, imports appear to constitute a more important supplement to supply. In the Atlantic Provinces, imports comprise an estimated 40 per cent of consumption and 35 per cent of consumption in the western region. It is estimated that imports constitute a smaller proportion of fresh market consumption, about 20 per cent, in the central region.

EXPORTS

The volume of carrots exported has risen since 1961, averaging 49.4 million pounds for 1971-75 as against the lower figure of 41.5 million pounds for 1961-65. However, the proportion of export sales to total carrot production has remained relatively constant at about 13-16 per cent. More than 95 per cent of exports each year have gone to the United States, principally to the major markets in New England and the eastern Seaboard. A small quantity of carrots is exported, also, to the Caribbean area (see Appendix Table 9). Ontario accounts for the bulk of export sales; and Quebec for most of the remainder (see Appendix Table 11).

The distribution of exports by month (see Appendix Table 10) indicates that probably 50 per cent of the carrots exported move directly from the field following harvest, the balance being shipped from storage holdings.⁽¹⁾ October and November are the main export months with export volumes declining markedly by February. There is no noticeable trend indicating that exports relative to sales to the domestic market are increasing in the later months of the marketing period.

PRICES

Based on farm value per pound, the annual average return per pound to the Canadian carrot grower has increased since 1961, the 1971-74 average being 2.9 cents per pound as against 2.0 cents per pound in 1961-65 (see Table 1). Farm prices for carrots are currently considerably higher in British Columbia (7.1 cents per pound) and in the Prairie Provinces (5.4 cents per pound) than in other producing regions (2.5-2.7 cents per pound). In the Maritime region farm returns have declined, although in other regions they have exhibited a relatively steady rise.⁽²⁾ Carrots are sold on the fresh market at substantially higher prices than those obtained for carrots sold for processing. The above farm values per pound are average prices including both fresh market and processing carrots.

Wholesale to retail price data obtained for fresh market carrots for 1974 are set forth in Appendix Tables 13a and 13b. These tables present weekly price quotations in five major Canadian markets for both domestic and imported carrots. Both domestic and imported carrots are marketed in three principal packs, in 1-,⁽³⁾ 2- or 3-pound "cellos" (cellophane packages), in fresh "bunches" which include tops, and in 50-pound bags for the institutional trade. The Board was informed that "cellos" comprise the most important retail pack. As indicated in the appendix tables, wholesale to retail prices may range widely, between 5 to 27 cents per pound, depending on the regional market, on the week of sale, and on whether carrots are marketed direct from the field or have been stored. Fresh bunched carrots, marketed direct from the field and sold with tops attached, command considerably higher prices per pound than cello packs. Wholesale prices are generally

(1) This assumes a production period from July to mid November.

(2) The decline in average farm value reflects the increasing importance of low value processing carrots.

(3) The 1-pound cello package will be discontinued in 1976.

much higher than the recorded returns per pound to the grower; the wholesale price often includes a substantial value added for additional grading, washing, topping, packaging, storage, and transport as well as normal wholesale mark-ups.

Table 4: Wholesale to Retail Selling Prices for Domestic and Imported Carrots in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974(a)

	<u>Halifax</u>		<u>Montreal</u>		<u>Toronto</u>		<u>Winnipeg</u>		<u>Vancouver</u>	
	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>
- ¢ per lb. -										
Jan.	12.0	-	5.7	-	5.9	-	9.2	-	14.2	15.8
Feb.	11.6	-	5.9	-	6.8	-	9.0	-	-	15.8
Mar.	11.8	-	6.4	-	6.8	-	9.1	11.9	-	14.5
Apr.	12.8	14.0	6.5	9.7	6.5	-	10.8	11.5	-	14.6
May	13.0	15.4	7.0	11.1	7.3	11.5	12.0	14.1	-	14.3
June	13.3	19.7	-	13.2	13.8	12.8	13.5	17.2	-	17.6
July	-	18.4	-	13.0	13.8	-	-	16.5	-	17.9
Aug.	17.2	18.3	9.3	13.5	11.4	-	12.9	15.3	16.5	-
Sept.	14.5	-	6.7	-	7.2	-	10.9	-	16.4	-
Oct.	14.3	-	6.3	-	6.8	-	10.9	-	16.0	-
Nov.	13.3	-	6.5	-	7.9	-	11.1	-	16.0	-
Dec.	13.3	-	7.1	-	9.1	-	11.5	-	-	-

(a) As based on a price per pound comparison of 2-pound or 3-pound cello packages.

Source: Appendix Tables 13a and 13b.

Table 4, based on a per pound price comparison of carrots in either 2- or 3-pound packages, provides a summary of the price structure prevailing in five markets as between imported and domestic carrots; monthly price trends are also indicated.

It will be observed that where quotations are available for both domestic and imported carrots, the latter usually commanded a higher wholesale price in all markets; this would appear to be so largely because imported carrots are normally spring grown and thus fresher than the stored domestic carrots. The wholesale price of the imported product is substantially lower in those months (March, April, and May) when imports must compete with domestic carrots; the price of the imported product rises significantly in those months (June and July) when there is little or no competition from domestic carrots. The availability of domestic carrots therefore appears to have some effect in limiting the price which can be commanded by the imported product. Wholesale prices vary by region, being substantially higher in Vancouver, Winnipeg, and Halifax than in Montreal or Toronto (see Table 4). This regional variance in wholesale prices follows the variance noted earlier in per pound farm values.

While fresh bunched carrots are not included in the comparison provided in Table 4, these are generally also available in most markets. However, in 1974 neither domestic nor imported bunched carrots were available on the Halifax market. In the other four major markets, California bunched carrots are available for most weeks of the year but were evidently not offered during the period when domestic bunched carrots were at peak availability.

The Board collected cost information respecting the landed cost, in major Canadian market centres, of carrots imported from California. Table 5 below summarizes the cost information shown in more detail in Appendix Tables 15a and 15b.

Table 5: The Landed Cost of Imported Carrots in Toronto, Montreal, Winnipeg, and Vancouver, 1972-1974

		<u>Cost</u> <u>f.o.b.</u>	<u>Freight</u> <u>Brokerage</u> <u>etc.</u>	<u>Duty</u>	<u>Total</u> <u>Landed Cost</u>
- range in ¢ per lb. -					
Toronto	1972	7.2-8.6	3.3-3.8	Free-0.5	10.9-12.3
	1973	8.3-12.4	3.2-3.6	Free-0.5	11.5-15.9
	1974	8.4-9.9	3.4-4.1	Free	11.8-14.0
Montreal	1974	8.4-9.9	3.7-5.7	Free	12.1-15.6
Winnipeg	1974	8.3-9.8	4.7-5.8	Free-0.5	13.6-15.6
Vancouver	1974	5.7-12.8	2.3-3.3	Free-0.5	9.0-16.1

Source: Appendix Tables 14a and 14b.

The 0.5 cent per pound duty, less than 5 per cent of total landed cost, is a much less important factor in the determination of total landed cost than are freight, brokerage fees, and related transport costs. These cost items in 1974, ranging from 3 to 6 cents per pound, comprised about 29-37 per cent of landed cost of imported carrots in Montreal and Toronto, 35-37 per cent in Winnipeg, and 17-31 per cent in Vancouver. Therefore, freight, brokerage, and related transport costs, as with most other imported vegetables offer more protection to the domestic grower than the import duty.

For the 1971-74 period, sales of carrots to domestic processors averaged 23 per cent of Canadian production. Carrot growers receive a considerably lower price per pound when selling carrots for processing than when selling to the fresh market. The average price for processing carrots was 2.2 cents per pound in 1971-74, almost 30 per cent lower than the price for fresh market carrots, 3.1 cents per pound during that period. Comparisons for these and earlier years are given in Table 6.

Table 6: Estimated Prices, Carrots Sold for Processing and Carrots Sold on Fresh Market, Crop Years 1966-1974

	Total Production		Sold for Processing		Sold to Fresh Market ^(a)	
	'000 lb.	¢/lb.	'000 lb.	¢/lb.	'000 lb.	¢/lb.
Average						
1966-70	344,113	2.1	56,000	1.8	288,113	2.2
1971-72	329,835	2.6	62,000	2.0	267,835	2.7
1972-73	328,523	2.9	66,000	2.3	262,523	3.0
1973-74	349,236	2.7	88,000	2.0	261,236	3.0
1974-75	384,692	3.4	108,000	2.4	276,692	3.8
Average						
1971-74	348,072	2.9	81,000	2.2	267,072	3.1

(a) Includes exports, principally fresh market sales to the United States.

Source: Derived from Statistics Canada data.

The lower price paid for carrots for processing reflects lower production costs; processing carrots are normally machine-harvested, permitting the grower substantial cost savings. In such machine harvesting the tops are automatically removed. Fresh market carrots are still in part harvested manually, particularly those pulled for "bunching." Carrots, also, are usually grown for processing by growers under contract with individual processors. With such contracts, in effect growers normally trade off potentially higher prices against guaranteed sales.

The Ontario prices for carrots for processing are negotiated on behalf of the growers by the Ontario Vegetable Marketing Board. To the Board's knowledge, this is the only Marketing Board undertaking such negotiations for carrots. It is estimated that the Ontario price paid for carrots for processing averaged \$48.90⁽¹⁾ per ton in 1974, or about 2.4 cents per pound. The 1974 Ontario price for processing carrots accords with the 1974 Canadian average as estimated in Table 6.

CANADA-UNITED STATES COMPARISONS

For the 1971-74 period carrot production in the United States averaged 2,060 million pounds with the area devoted to this crop being about 77 thousand acres (see Appendix Tables 15a to 15c). A comparison with 1966-70 averages indicates a modest increase in production and yields, with a slight decline in acreage harvested. The average yield obtained currently in the United States (26,821 pounds per acre) is higher than that in Canada (22,646 pounds per acre). Growers in Ontario, Canada's main carrot producing province, achieve, however, much higher annual yields (averaging 40,996 pounds per acre in 1971-74) compared to those in California (32,310 pounds per acre). California is by far the most important carrot producing area in the United States. California and Texas together account currently for about 70 per cent of U.S. carrot production.

Carrots grown for processing take an important share of U.S. production, about 40 per cent; in comparison a much lower proportion of Canadian production, about 23 per cent, is for processing. In the United States, as in Canada, farm prices for processing carrots have been much lower than farm prices

(1) Depending on delivery dates, the price negotiated in Ontario ranged from \$44.00 to \$81.00 per ton in 1974.

received for fresh market carrots. The average farm value per pound, for fresh market carrots, is significantly higher in the United States (7.3 cents in 1971-74) than in Canada (3.1 cents). With respect to carrots grown for processing, however, the average U.S. farm value (1.6 cents in 1971-74) is somewhat less than the comparable Canadian price (2.2 cents).

Fresh carrot exports by the United States comprise an almost negligible share of production (less than 0.2 per cent) whereas Canadian exports, currently 14.2 per cent of production, are of considerable importance in relation to domestic production. The bulk of U.S. carrot exports is shipped to Canada, and similarly Canadian exports go almost entirely to the United States.

The Board was able to obtain at least partial cost data pertaining to carrot production in Canada and the United States. Such cost comparisons are difficult to make because of yield differences, different soil and climatic conditions, varied growing and marketing practices, and different accounting methods used in cost surveys. Table 7 contains production costs for Ontario, California and Texas which are believed to be reasonably representative and comparable. Production costs for Ontario growers, at 3.08 cents per pound as based on a 1974 sample, appear to be much less than reported costs either in California (6.55 cents in 1973) or Texas (4.53 cents in 1972). Production costs in 1974 in Texas may be taken as being over 5 cents per pound if adjusted for probable cost increases between 1972-1974. Surveyed average crop yields in Ontario are considerably higher than those in California and three times the average crop yield reported for Texas; these higher yields explain in large part the lower costs prevailing in Ontario. It should be noted that average yields reported for all Ontario growers in 1974 were 47 thousand pounds, and not 55 thousand as surveyed, and that California yields have averaged closer to 34 thousand pounds. While the substitution of these more realistic yields in the calculations would reduce the Ontario advantage it would still be substantial. Only partial production cost data were available to the Board for Quebec growers and these data are not shown.⁽¹⁾ However, production costs for fresh market carrots in Quebec are probably less than those in Ontario and accordingly, much less than in California or Texas.

(1) According to a study prepared for the Tariff Board by G.A. Fisher, Quebec production costs were as low as 1.2 cents per pound in 1973 for fresh market carrots. This last study covers, however, only costs and excluded land charges.

Table 7: Carrots: Production Costs in Ontario and U.S.
Growing Areas

	<u>Ontario</u> <u>Bradford Marsh</u> <u>(Fresh Market)</u> 1974	<u>California</u> ^(a) <u>Imperial Valley</u> <u>(Fresh Market)</u> 1973	<u>Texas</u> <u>(Fresh Market)</u> 1972
Yield, lb./acre	55,000	27,000	18,000
	- \$ per acre ^(b) -		
<u>Pre-Harvest and Cultivation Costs</u>			
Labour	80.15		56.20
Machines	121.44	166.03	24.00
Materials	234.59	100.75	58.15
Total	436.18	266.78	138.35
<u>Harvesting and Marketing Costs</u>			
Storage	308.00	-	-
Labour	189.50	..	..
Machines	126.00	..	..
Materials	210.00	..	..
Total	833.50	1,375.00	612.00
<u>Overhead Costs</u>			
Land charges	395.00	90.00	35.00
Other	26.85	35.68	30.53
Total	421.85	125.68	65.53
Total Costs	1,691.53	1,767.46	815.88
Total Costs per Pound	3.08	6.55	4.53

(a) California costs are based on two crops per year. Pre-harvest and cultivation costs and harvesting and marketing costs would apply to each crop. Land charges are derived as one-half of annual rental cost.

(b) In respective national currencies and adjusted exchange rates.

Source: Background Paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

TARIFF CONSIDERATIONS

Fresh carrots are presently classified under tariff item 8707-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Carrots per pound	Free	0.5 ct. or Free	1 ct. or Free

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 40 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty is not in effect.

When subject to specific rates of duty and imported in packages five pounds or less, each, see additional duty following item 8731-1.

Carrots are subject to additional duties, under item 8731-1 if entered in small retail packs (usually cellos) weighing 5 pounds or less; the additional packaging duties are 5 p.c. M.F.N. and 10 p.c. Gen. with free entry again applicable under the B.P. rate. As imports are virtually entirely of U.S. origin the only duty of importance is the M.F.N. specific duty of 0.5 cent per pound and the related packaging duty of 5 p.c. There is no provision for carrots under the General Preferential Tariff. Tariff item 8707-1 is bound under GATT.

The present tariff on carrots has been in effect since June 4, 1969, when the M.F.N. rate was reduced from 0.8 cent to 0.5 cent. Rates of duty applicable in various periods are given below:

Table 8: Carrots: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. (a) (b)
1936-38	Free	15 p.c.	30 p.c. (a)
1939-47	Free	10 p.c.	30 p.c. (a)
1948-50 (May 31)	Free	1 ct. (26 weeks) (c)	30 p.c. (a)
		10 p.c.	30 p.c. (a)
1950 (June 1) -	Free	1 ct. (26 weeks)	1 ct. (26 weeks)
1959 (Apr. 9)		10 p.c.	10 p.c.
1959 (Apr. 10)-67	Free	1 ct. (40 weeks)	1 ct. (40 weeks)
		Free	Free
1968 (Jan. 1)	Free	0.9 ct. (40 weeks) (d)	1 ct. (40 weeks)
		Free	Free
1969 (Jan. 1)	Free	0.8 ct. (40 weeks) (d)	1 ct. (40 weeks)
		Free	Free
1969 (June 4)	Free	0.5 ct. (40 weeks) (d)	1 ct. (40 weeks)
		Free	Free

(a) Not less than 1 ct., June 15-Feb. 28.

(b) Imports from the United States were subject to the General Tariff until December 31, 1935.

(c) Not applied until 1950.

(d) Since April 10, 1959 packages weighing 5 pounds or less have been subject to an additional duty of 5 p.c. M.F.N. and 10 p.c. Gen.

Source: Canadian Customs Tariff.

Free entry applies to B.P. imports. With reference to the Most-Favoured-Nation Tariff, ad valorem rates applied to carrots during the period 1935-47, a specific duty being introduced in 1948. At that time seasonal duty application was established with provision for a specific duty of 1 cent per pound for 26 weeks, the off-season rate being 10 p.c. which was subsequently reduced to Free. In 1959 the period permitted for application of the specific duty was extended to the present 40 weeks. With respect to the General Tariff, a specific duty was established in 1950 (at 1 cent) with the seasonal application provisions of the specific duty being the same as under the M.F.N. schedule. The General Tariff has remained unchanged since 1950 while the amount of the M.F.N. specific duty has been reduced following GATT negotiations.

Appendix Table 16 presents the actual period in each year since 1966 during which the seasonal specific duty has been in effect in each of the three tariff regions. Although the application of the seasonal specific duty on carrots is authorized for up to 40 weeks, inclusive, in continuous or split periods in each of the three tariff regions, the period of actual application has sometimes been less. In the central tariff region in 1973 and 1974, for example, the seasonal duty was in force for only five to six weeks in the late spring. In western Canada and in the Maritime Provinces, the seasonal duty has been applied in most years for approximately the full 40 weeks permitted under tariff item 8707-1.

The ad valorem equivalent of the M.F.N. specific duty has declined substantially during the period under review. It was 22.2 per cent in 1967, see Appendix Table 17. By 1969, when as a result of GATT negotiations, the specific duty had been reduced from 1 to $\frac{1}{2}$ cent per pound, the ad valorem equivalent was 8.9 per cent. Since that time, the increase in export prices has eroded the level of protection provided by the specific duty to an ad valorem equivalent of 5.7 per cent in 1975.

The Board estimated the cost of the existing specific duty on carrots to consumers and its benefits to growers. The assumptions and limitations of this calculation are described in the introduction to this report.⁽¹⁾ It is estimated that the consumers may pay as much more for carrots, on account of the tariff, as \$2.5 million annually or about 44 cents per family of four. Growers may receive as much as \$1.8 million more for their carrot crop annually or about \$100 per acre at 1974 yields. The proposal of the Horticultural Council to maintain the present duties would leave these estimated costs and benefits unchanged. Free entry would, it is evident, reduce the cost and the benefits in the amounts estimated above.

In the Tariff Schedules of the United States, fresh carrots are entered under item 135.40 of Part 8. - Vegetables Subpart A. (Vegetables, fresh, chilled or frozen). The applicable tariff on imports from Canada (Column 1 rate) is 6% ad valorem; this compares with an ad valorem equivalent of the specific duty in Canada of 5.7 per cent on dutiable imports in 1975.

(1) See introduction p. 10.

For carrots, other than baby carrots, the Canadian Horticultural Council recommended no change in the provisions of existing item 8707-1. The Council did recommend, however, that for carrots, as well as for certain other vegetables, that the additional duty now levied on consumer packages of 5 pounds or less be increased from 5 p.c. M.F.N. to 10 p.c. M.F.N. This recommendation respecting all pre-packaged vegetables is discussed in Volume 1, Part I of the Board's report.

The Canadian Horticultural Council also proposed that a new tariff item should be established for baby carrots "Baby Carrots, with a maximum length of $3\frac{1}{2}$ inches." A rate of 5 cents per pound, but not less than 20 per cent ad valorem was proposed for this new item under British Preferential, Most-Favoured-Nation and General Tariff. The seasonal application recommended for this proposed new item is identical to that now provided for under present tariff item 8707-1 (40 weeks). The recommendation of the Council concerning baby carrots requests a specific rate of duty, at 5 cents per pound, greatly higher than that presently in effect for standard carrot varieties at 0.5 cent per pound. Moreover, as advocated by the Council, the proposed duty of 5 cents per pound would also apply to B.P. imports. This proposal would be in contrast to the existing duty-free status granted to B.P. imports under items 8701-1 to 8731-1 relative to fresh vegetables.

There is very little information available respecting the production or acreage in Canada of baby carrots. Moreover, imports of baby carrots, in the fresh state, are evidently of insignificant volume. In fact, under grade regulations there is, as yet, no grade established for such fresh carrots.⁽¹⁾ During the public sittings it was indicated that fresh baby carrots were entered at a price of some 25 cents per pound versus 5 to 6 cents per pound for standard carrot varieties. In view of the much higher price per pound for such baby carrots, The Canadian Horticultural Council advocates the higher specific duty (5 cents per pound) to provide an ad valorem equivalent protection of probably some 20 per cent. This ad valorem rate of 20 per cent, and the 20 per cent minimum proposed, would be more than triple the current ad valorem equivalent, 5.7 per cent at 1975 import prices, afforded to standard carrot varieties.

Carrots have been imported for processing only infrequently in recent years and only in minor quantities, nevertheless, in its brief to the Tariff Board, the Canadian Food Processors Association recommended that an additional tariff item be introduced for carrots when imported for processing. A 10 per cent ad valorem rate was advocated as the seasonal tariff, with free entry applying to off-season months. No revision was recommended concerning the 40-week seasonal application now provided for under tariff item 8707-1.

(1) According to Agriculture Canada, 1976 amendments to Fresh Fruit and Vegetable regulations will establish a new grade for baby carrots, defined as carrots not exceeding $4\frac{1}{2}$ inches in length and $\frac{3}{4}$ inch in diameter.

The rate proposed by the Canadian Food Processors Association for carrots for processing (10 per cent ad valorem) is in fact, higher than the ad valorem equivalent rate pertaining presently to imports for the fresh market. However, carrots entered for processing are probably priced at about 20-30 per cent less per pound than fresh market carrots. Carrots for processing thus appear to be entered at a 1974 price of approximately 4 cents per pound. Given the current specific duty of 0.5 cent per pound, the ad valorem equivalent rate on processing carrots would appear to be 12-13 per cent. The adoption of a straight ad valorem basis of 10 per cent, would afford at existing price levels, a slight tariff reduction and consequent cost saving to importing processors. However, if prices continue to rise, the 10 p.c. rate would exceed the 0.5-cent specific duty applicable to carrots for the fresh market.

Tariff item 8707-1 currently makes provision for the additional duty on carrots imported in individual packages of 5 pounds or less. The additional duty is, however, applicable only when the seasonal duty is in effect. If the seasonal duty on carrots were to be abolished and free duty were to be accorded year round, and the packaging duty were to be retained, then both the wording in tariff item 8707-1 and in the provision following tariff item 8731-1, with references to the packaging duty on carrots, would require amendments. In the case of tariff item 8707-1, the words "subject to specific rates of duty" would have to be dropped, because their retention, in the absence of a seasonal duty, would in fact mean that there would not be a packaging duty. With respect to the provision following tariff item 8731-1, it would have to be spelled out specifically that the additional duty would be applicable with respect to carrots for a maximum of 40 weeks during any 12-month period ending the 31st March, which may be divided into two separate periods.

CONCLUSIONS

Canada's carrot production currently accounts for an estimated 76 per cent of domestic fresh market consumption. While considerable quantities of carrots are imported, the imports occur mainly in those months and in regions where domestic supplies are limited. Improved storage facilities, however, have enabled Canadian growers, particularly in the central region, to move sizable quantities of carrots into the market during the off-season months of March, April, and May. They have thus obtained an overall larger share of the fresh market in Canada despite rising imports during the summer months.

Domestic growers have also been able to take advantage of the rising demand for carrots for processing. The annual volume of carrots sold for processing has risen by some 50 per cent since 1961-65, reaching a level of some 81 million pounds in 1971-74. Carrots have been imported for processing only infrequently in recent years and only in minor quantities. Canada is able to export about 14 per cent of its carrot production with average annual exports in 1971-74 substantially greater than in the 1961-65 period. While Canada remains a net importer of fresh market carrots, the trade deficit has declined significantly. The Board notes, however, that imports of processed carrots have risen notably over the same period.

During the public sittings The Canadian Horticultural Council, in describing the general advantages enjoyed by the United States in vegetable production, singled out carrots, as well as turnips, as being a crop in which Canadian growers are not at a "production disadvantage" and for which yields were considered adequate.

Certainly the gains achieved in production and trade over the past decade, as well as other evidence available to the Board, permits the conclusion that domestic producers, generally speaking, enjoy a strong competitive position vis-à-vis growers in the United States, not only in local markets, but in other regions as well. The Board is aware that not all regions possess the same capability. The relatively high level of imports into the Maritimes and British Columbia, for example, is a matter of some concern. In the case of the Maritimes, the statistics indicate an inability on the part of the Maritime growers to compete in the fresh market with carrots either from the United States or central Canada. It seems unlikely B.C. carrot production would increase even with protection.

While the Board considers these problem areas would merit further investigation by those more closely associated with the industry, the Board does not consider them to be of such overriding significance as to turn the Board away from the main thrust of its conclusion that free entry nationally is desirable from the point of view of consumers and sustainable on the part of the industry.

The Board therefore recommends free entry throughout the year for carrots other than baby carrots. It is felt, nonetheless, desirable to continue the packaging duties at present provided for on imports of retail pre-packs of 5 pounds or less. As discussed elsewhere in this Reference, such packaging duties would be 5 p.c. M.F.N., and 10 p.c. Gen. In the case of carrots, other than baby carrots, the Board recommends that packaging duties be applicable on a seasonal basis, not being in force for more than 40 weeks in any 12-month period.

In view of the above recommendation for free entry throughout the year for carrots imported in bulk there is, accordingly, no necessity to establish any additional and separate tariff item for carrots for processing as proposed by the Canadian Food Processors Association.

The Board is of the opinion that a new tariff item should be established respecting baby carrots. It is concluded that, at this time, however, there is little justification for adopting the proposal of The Canadian Horticultural Council for a 5-cent specific duty on such baby carrots. Subject to a possible upward revision, should future circumstances so warrant, the Board proposes, on a provisional basis, a M.F.N. specific duty of 1 cent per pound applicable to baby carrots with an ad valorem minimum of 5 per cent. To conform to proposed amendments to grade regulations, the maximum length of such baby carrots should be established at $4\frac{1}{2}$ inches.

RECOMMENDATIONS

The Board recommends that the existing tariff schedule in effect respecting carrots under tariff item 8707-1 be deleted and that the following schedule be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Carrots, n.o.p.	Free	Free	30 p.c.
<p>When imported in packages five pounds or less, each, see additional duty following item 8748-1, which may apply.</p>			
Carrots, baby, with a maximum length not exceeding 4½ inches per pound	Free	1 ct. but not less than 5 p.c., or Free	1 ct. but not less than 5 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 40 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

Carrots: Acreage and Number of Farms, by Province
and Region, 1961 and 1971

	1961		1971		No. of Farms Reporting
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	
Atlantic Region	646	6.8	924	7.0	521
Nfld.	78	0.8	92	0.7	176
P.E.I.	41	0.4	203	1.5	45
N.S.	376	3.9	412	3.1	188
N.B.	151	1.6	217	1.6	112
Central Region	7,616	79.7	10,693	81.2	1,993
Que.	4,225	44.2	6,948	52.8	1,061
Ont.	3,391	35.5	3,745	28.4	932
Western Region	1,294	13.5	1,549	11.8	555
Man.	422	4.4	367	2.8	97
Sask.	46	0.5	93	0.7	62
Alta.	294	3.1	623	4.7	132
B.C.	532	5.6	466	3.5	264
Canada ^(a)	9,559	100.0	13,167	100.0	3,072

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Carrots: Supply and Disposition Ratios, Canada, Crop Years,
1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
			-	per cent	-		
<u>Per Cent of Domestic Production:</u>							
Sold for Processing	17.5	16.2	18.8	20.1	25.2	28.1	23.3
Sold to Domestic Fresh Market	69.1	67.4	66.1	66.1	61.5	57.4	62.5
Exported Fresh	13.4	16.4	15.1	13.9	13.3	14.5	14.2
<u>Total Imports as Per Cent:</u>							
of Total Supply Available	20.6	19.8	21.9	22.0	19.0	19.5	20.6
of Total Domestic Disappearance	23.1	22.8	24.9	24.6	21.3	22.0	23.2
<u>Fresh Imports as Per Cent:</u>							
of Fresh Market Availability	23.5	20.5	21.4	20.9	17.8	20.9	20.3
of Fresh Exports	188.7	131.8	146.4	152.7	122.0	131.3	137.9
of Fresh Market Consumption	26.8	24.3	25.1	24.3	20.9	24.9	23.8
<u>Processed Imports as Per Cent:</u>							
of Consumption in Processed Form	4.0	16.1	24.1	25.9	22.2	15.4	21.3
of Total Domestic Disappearance	0.7	2.9	5.3	6.1	6.5	4.7	5.6
<u>Per Cent of Fresh Market Consumption:</u>							
From Domestic Production	73.2	75.7	74.9	75.7	79.1	75.1	76.2
From Imports	26.8	24.3	25.1	24.3	20.9	24.9	23.8
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	16.2	17.9	21.9	23.7	29.4	30.3	26.5
Consumed in Fresh Form	83.8	82.1	78.1	76.3	70.6	69.7	73.5
<u>Net Imports (a) as % of Total Domestic Disappearance</u>							
Production as % of Total Domestic Disappearance	11.2	7.6	11.5	12.5	9.2	8.8	10.4
	88.8	92.4	88.5	87.5	90.8	91.2	89.6

Appendix Table 2

(a) Total imports minus total exports.

Source: Table 2.

Appendix Table 3

Carrots: Estimated Monthly Distribution of Fresh Shipments^(a),
Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	Average 1971-74	1971-72	1972-73	1973-74	1974-75
	- thousand pounds -					
July	7,741	3,628	5,863	1,780	3,952	2,917
Aug.	25,471	18,301	21,118	16,579	18,471	17,035
Sept.	28,692	26,474	28,136	26,150	21,649	29,960
Oct.	32,215	31,694	29,182	33,528	30,348	33,717
Nov.	33,235	29,883	25,238	33,267	30,691	30,336
Dec.	27,789	23,719	26,545	19,596	21,735	27,000
Jan.	24,358	23,733	22,317	22,960	22,036	27,619
Feb.	21,299	20,999	22,099	18,684	22,422	20,791
Mar.	16,154	19,582	25,564	19,639	16,752	16,372
Apr.	9,433	12,110	7,715	14,909	15,786	10,031
May	4,056	6,591	3,269	8,268	9,923	4,905
June	1,321	954	894	1,649	1,009	265
Year	231,764	217,668	217,940	217,009	214,774	220,948

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Carrots: Estimated Monthly Distribution of Fresh Market
Consumption, Crop Years, 1961-65 to 1971-74

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent -	- per cent -	- thousand pounds -	- thousand pounds -	- thousand pounds -	- per cent -
July	49.9	55.9	3,628	11,772	15,400	76.4
Aug.	3.4	8.4	18,301	2,982	21,283	14.0
Sept.	0.3	0.3	26,474	245	26,719	0.9
Oct.	0.6	0.2	31,694	326	32,020	1.0
Nov.	1.8	0.8	29,883	636	30,519	2.1
Dec.	6.1	4.3	23,719	1,390	25,109	5.5
Jan.	12.9	8.6	23,733	2,583	26,316	9.8
Feb.	26.3	12.9	20,999	3,197	24,196	13.2
Mar.	46.7	33.4	19,582	4,652	24,234	19.2
Apr.	74.9	61.5	12,110	8,245	20,355	40.5
May	88.1	80.1	6,591	14,177	20,768	68.3
June	93.0	92.2	954	17,905	18,859	94.9
Total	26.8	24.3	217,668	68,110	285,778	23.8

Source: Derived from Statistics Canada and Agriculture Canada data.

Carrots: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>United Kingdom</u>	<u>Others</u>	<u>Total</u>
		-	thousand pounds	-	
1966	78,166	-	-	-	78,166
1967	74,124	-	-	-	74,124
1968	87,990	19	90	40	88,139
1969	67,160	1	-	-	67,161
1970	77,037	53	-	-	77,090
Average 1966-70	76,895	15	18	8	76,936
1971	65,950	7	-	-	65,957
1972	76,698	-	-	-	76,698
1973	64,155	4	14	2	64,174
1974	63,172	-	-	-	63,172
1975	74,664	-	-	-	74,664
Average 1971-75	68,928	2	3	*	68,933

Source: Statistics Canada.

Carrots: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		-	thousand pounds	-		
Atlantic Region	8,916	6,577	7,746	5,688	4,903	7,128
Nfld.	714	493	334	268	267	930
P.E.I.	719	295	284	265	174	267
N.S.	3,788	2,387	2,653	1,893	1,222	2,133
N.B.	3,695	3,403	4,475	3,262	3,240	3,798
Central Region	47,212	37,521	48,078	36,294	36,120	39,662
Que.	24,404	19,197	24,788	18,480	20,622	23,555
Ont.	22,809	18,324	23,289	17,814	15,498	16,107
Western Region	20,808	21,859	20,874	22,193	22,149	27,874
Man.	3,775	3,196	4,087	2,520	3,357	2,863
Sask.	1,020	1,019	1,003	1,164	1,390	1,808
Alta.	3,894	3,573	3,609	4,341	3,551	5,045
B.C.	12,119	14,071	12,176	14,167	13,850	18,158
Canada	76,936	65,957	76,698	64,174	63,172	74,664

Source: Statistics Canada

Appendix Table 7

Carrots: Imports by Month, Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	%	Average 1971-74	%	1971-72	1972-73	1973-74	1974-75
	- thousand pounds				-			
July	9,796	13.2	11,772	17.3	11,897	13,320	9,717	12,154
Aug.	2,322	3.1	2,982	4.4	1,456	3,552	1,305	5,614
Sept.	92	0.1	245	0.4	59	280	228	414
Oct.	71	0.1	326	0.5	102	106	533	563
Nov.	270	0.4	636	0.9	524	775	766	479
Dec.	1,242	1.7	1,390	2.0	1,611	1,285	1,422	1,243
Jan.	2,300	3.1	2,583	3.8	2,207	2,895	2,340	2,890
Feb.	3,166	4.3	3,197	4.7	2,778	2,883	3,247	3,880
Mar.	8,105	10.9	4,652	6.8	5,469	4,060	4,248	4,831
Apr.	15,056	20.3	8,245	12.1	11,273	7,645	4,763	9,298
May	16,303	21.9	14,177	20.8	14,095	16,132	11,911	14,570
June	<u>15,566</u>	<u>20.9</u>	<u>17,905</u>	<u>26.3</u>	<u>21,559</u>	<u>16,589</u>	<u>16,194</u>	<u>17,278</u>
Total	74,287	100.0	68,110	100.0	73,028	69,522	56,674	73,215

Source: Statistics Canada.

Appendix Table 8

Carrots: Percentage Distribution of Fresh Market Imports from
United States, by State or Origin, by Region, 1972-1974

	California	Arizona	Texas	Others	Total
<u>1972</u>		- per cent	-		
Maritime Region	61.8	16.1	22.1	-	100.0
Central Region	74.1	3.7	0.1	22.1	100.0
Western Region	88.9	6.3	4.0	0.8	100.0
Canada	78.0	5.3	2.7	14.0	100.0
<u>1973</u>					
Maritime Region	33.2	12.0	54.8	-	100.0
Central Region	80.8	8.1	8.7	2.4	100.0
Western Region	80.1	6.8	13.1	*	100.0
Canada	77.0	7.9	13.8	1.3	100.0
<u>1974</u>					
Maritime Region	56.3	24.2	19.3	0.2	100.0
Central Region	73.6	2.5	0.4	23.5	100.0
Western Region	95.2	2.2	2.4	0.2	100.0
Canada	80.8	3.6	2.3	13.3	100.0

Source: Agriculture Canada.

Appendix Table 9

Carrots: Exports by Country of Destination, 1966-1975

	<u>United States</u>	<u>Caribbean Area</u>	<u>United Kingdom</u>	<u>Others</u>	<u>Total</u>
	- thousand pounds -				
1966	42,738	813	1,603	44	45,198
1967	56,045	1,154	167	8	57,373
1968	47,899	1,566	-	156	49,621
1969	62,300	1,496	1,298	154	65,249
1970	55,866	1,904	-	59	57,830
Average 1966-70	52,970	1,387	614	84	55,054
1971	51,040	2,489	-	53	53,583
1972	39,527	1,752	-	50	41,328
1973	41,138	1,428	-	74	42,640
1974	57,824	1,425	110	61	59,419
1975	48,318	1,354	69	128	49,869
Average 1971-75	47,569	1,690	36	73	49,368

Source: Statistics Canada.

Appendix Table 10

Carrots: Exports by Month, Crop Years,
1966-70 to 1974-75

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
	- thousand pounds -					
July	80	42	17	45	101	3
Aug.	1,486	1,231	3,368	502	742	314
Sept.	10,352	7,653	10,180	7,094	6,013	7,326
Oct.	13,154	11,455	12,022	11,224	11,444	11,131
Nov.	12,627	11,217	9,652	11,342	9,333	14,541
Dec.	7,358	6,345	7,328	3,793	3,492	10,768
Jan.	7,043	4,920	2,149	3,021	7,284	7,225
Feb.	2,458	2,707	2,232	2,916	3,463	2,218
Mar.	1,293	2,208	2,004	3,468	1,625	1,733
Apr.	312	1,279	632	1,965	2,078	440
May	137	316	280	102	883	1
June	49	30	31	42	3	44
Total	56,349	49,404	49,895	45,514	46,462	55,744

Source: Statistics Canada.

Carrots: Exports by Province and Region, 1972-1975

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -			
Atlantic Region	40	101	208	54
N.S.	29	73	103	54
N.B.	10	28	105	-
Central Region	40,802	42,502	59,171	49,707
Que.	15,222	9,792	16,997	16,635
Ont.	25,580	32,710	42,174	33,072
Western Region	486	37	40	107
Man.	228	-	-	68
Sask.	80	-	-	-
Alta.	158	-	-	-
B.C.	20	37	40	40
Canada	41,328	42,640	59,419	49,869

Source: Statistics Canada.

Carrots: Monthly Storage Holdings, on the 1st of the Month, 1971-72 to 1974-75

	Maritime Region	Quebec	Ontario	Central Region	Prairies	British Columbia	Western Region	Canada
				-	thousand pounds	-		
1971-72								
Nov.	5,748	34,916	63,248	98,164	5,134	1,908	7,042	110,954
Dec.	3,119	25,649	64,248	89,897	4,360	1,322	5,682	98,698
Jan.	2,051	13,759	51,739	65,498	3,615	728	4,343	71,892
Feb.	1,244	6,904	38,241	45,145	2,272	296	2,568	48,957
Mar.	351	3,751	23,798	27,549	1,639	419	2,058	29,958
Apr.	329	1,681	10,761	12,442	573	419	992	13,763
May	336	2,302	3,529	5,831	451	294	745	6,912
1972-73								
Nov.	3,607	28,066	67,408	95,474	12,653	1,856	14,509	113,590
Dec.	4,907	24,356	66,459	90,815	9,862	1,127	10,989	106,711
Jan.	3,040	18,151	59,077	77,228	4,017	810	4,827	85,095
Feb.	905	14,312	46,665	60,977	2,693	436	3,129	65,011
Mar.	266	8,656	28,862	37,518	962	672	1,634	39,418
Apr.	225	3,347	20,726	24,073	370	287	657	24,955
May	297	1,336	12,251	13,587	574	450	1,024	14,908
1973-74								
Nov.	3,591	34,173	80,608	114,781	3,956	4,803	8,759	127,131
Dec.	4,767	34,942	68,112	103,054	3,658	4,200	7,858	115,679
Jan.	2,230	27,628	58,632	86,260	3,351	2,084	5,435	93,925
Feb.	1,045	19,922	41,010	60,932	2,174	732	2,906	64,883
Mar.	562	10,610	29,176	39,786	1,677	638	2,315	42,663
Apr.	322	3,389	22,051	25,440	1,158	216	1,374	27,136
May	295	1,897	8,225	10,122	778	664	1,442	11,859

Carrots: Monthly Storage Holdings, on the 1st of the Month, 1971-72 to 1974-75

	Maritime Region	Quebec	Ontario	Central Region	Prairies	British Columbia	Western Region	Canada
<u>1974-75</u>				-	thousand pounds	-		
Nov.	8,705	39,011	66,919	105,930	3,830	5,279	9,109	123,744
Dec.	7,983	28,702	60,342	89,044	3,413	1,808	5,221	102,248
Jan.	4,493	19,009	47,962	66,971	2,853	928	3,781	75,245
Feb.	1,664	11,638	29,561	41,199	1,998	545	2,543	45,406
Mar.	611	6,440	20,320	26,760	545	490	1,035	28,406
Apr.	268	1,959	12,725	14,684	376	410	786	15,738
May	360	1,440	2,530	3,970	512	356	868	5,198
<u>Average 1971-74</u>								
Nov.	5,413	34,042	69,546	103,587	6,393	3,462	9,855	118,855
Dec.	5,194	28,412	64,790	93,202	5,323	2,114	7,437	105,834
Jan.	2,954	19,637	54,353	73,989	3,459	1,138	4,597	81,539
Feb.	1,215	13,194	38,869	52,063	2,284	502	2,786	56,064
Mar.	448	7,364	25,539	32,903	1,206	555	1,761	35,112
Apr.	286	2,594	16,566	19,160	619	333	952	20,398
May	322	1,744	6,634	8,378	579	441	1,020	9,720

Source: Agriculture Canada.

Appendix Table 13a (concl.)

Carrots: Weekly Wholesale to Retail Prices at Halifax, Montreal and Toronto, 1974

Week Ending	Halifax		Montreal(a)		Toronto(c)	
	Ariz., Cal., Tex.	N.S. (36 lb.) -	U.S. Repack(b) Que. - cello, 24/2 ctn. (48 lb.) -	Cal. - cello, 24/2 ctn. (48 lb.) -	Ont. - cello, 24/2 ctn. (48 lb.) -	Ont.
			- cents per pound -			
Sept. 6		14.7	14.7	14.7		7.6
13		14.4	14.4	14.4		6.7
20		14.4	14.4	14.4		7.2
27		14.4	14.4	14.4		7.3
Oct. 4		14.4	14.4	14.4		6.8
11		13.9		6.5		6.7
18		14.4		6.0		6.7
25		14.4		6.0		6.9
Nov. 1		13.3		6.5		6.9
8		13.3		6.1		6.9
15		13.3		6.1		7.7
22		13.3		5.9		9.1
29		13.3		7.8		9.1
Dec. 6		13.3		7.8		9.1
13				7.0		9.1
20				6.8		9.1
27				6.8		9.1

- (a) According to Agriculture Canada data, California fresh bunched carrots were also available on the Montreal market during the period January 4 to July 26 and in the subsequent period from October 4 to December 29. Wholesale price quotations for such bunched carrots are not included as they are subject to major statistical discrepancies. Quebec grown bunched carrots were available for the period July 5 to November 1.
- (b) Refers to carrots imported in bulk (usually in 75- to 80-lb. bags) and repacked into smaller retail-sized packs.
- (c) According to Agriculture Canada data, California fresh bunched carrots were also available on the Toronto market during the period January 4 to August 9 and in the subsequent period from October 11 to December 27. Wholesale price quotations for such bunched carrots are not included as they are subject to major statistical discrepancies. Ontario grown bunched carrots were available on the Toronto market for the period July 26 to November 8.

Source: Agriculture Canada.

Carrots: Weekly Wholesale to Retail Prices at Winnipeg and Vancouver, 1974

Week Ending	Winnipeg			Vancouver		
	Ariz., Cal., Tex. - cello, 16/3 ctn. (48 lb.) -	Man. (a) Man. -	Cal. Man. - fresh bunch (b) -	Cal. - cello(c) -	Cal. - bunch doz. -	B.C. B.C.
Jan. 4		9.4	23.8	15.9	21.5	
11		9.1		15.1	23.6	
18		9.3		16.1	21.3	
25		9.1		16.1	21.9	
Feb. 1		9.1		16.1	21.9	
8		8.9		15.9	21.9	
15		8.9		15.6	21.9	
22		8.9		15.4	21.9	
Mar. 1		8.9	26.0	13.8	21.9	
8		9.5	24.5	15.6	21.9	
15	12.5	9.1	24.6	14.4	21.9	
22	11.7	9.1	25.0	14.1	21.9	
29	11.4	9.1	24.5	14.6	21.9	
Apr. 5	11.4	10.7	23.3	14.8	21.9	
12	11.5	10.7	23.5	14.8	21.5	
19	11.5	10.7	24.5	14.4	22.3	
26	11.5	10.9	24.5	14.3	21.9	
May 3	11.7	10.9	23.5	14.6	21.9	
10	11.7	10.9	24.0	14.3	21.9	
17	11.7	11.5	27.1	14.5	23.3	
24	17.7	13.0	24.0	14.5	23.3	
31	17.7	13.5	25.5	13.8	23.3	
June 7	16.9	13.5	26.6	16.7	23.3	
14	16.4		26.6	17.5	23.3	
21	17.7		26.6	18.2	23.3	
28	17.7		27.1	18.0	23.3	

- cents per pound -

Appendix Table 13b (concl.)

Carrots: Weekly Wholesale to Retail Prices at Winnipeg and Vancouver, 1974

Week Ending	Winnipeg (a)			Vancouver		
	Ariz., Cal., Tex. - cello, 16/3 ctn.	Man. (48 lb.) -	Cal. - fresh bunch (b) -	Cal. - cello (c) -	B.C. - bunch doz. -	B.C.
July	5	16.3	27.1	18.0		23.3
	12	16.4	27.1	18.0		23.3
	19	16.4	28.7	17.7		23.3
	26	16.7	27.1	17.7		21.9
Aug.	2	16.1	26.0		16.6	22.1
	9	16.1	26.0	25.0	16.6	22.1
	16	16.8	25.5	25.0	16.5	22.1
	23	13.7	24.5	22.9	16.5	23.6
Sept.	30	13.7	26.0	24.0	16.5	23.3
	6		27.1	24.2	16.5	23.3
	13		27.1	24.2	16.9	21.9
	20				16.0	21.9
Oct.	27				16.0	21.9
	4				16.0	19.4
	11				16.0	19.4
	18				16.0	21.7
Nov.	25				16.0	19.0
	1		27.1		16.0	20.4
	8		27.7		16.0	17.8
	15		27.6		16.0	18.2
Dec.	22		28.1		16.0	18.2
	29		28.5		16.0	17.3
	6		28.5		16.0	17.8
	13					
	20					
	27					

(a) Includes, for the period April 5 to June 7, quotations for Ontario carrots.
(b) California carrots per bunch of 2 dozen (24 lb.); Manitoba carrots per bunch of 1 dozen (12 lb.).
(c) California 24/2 ctn. (48 lb.) and British Columbia 18/2 ctn. (36 lb.).

Source: Agriculture Canada.

Appendix Table 14b

Imported United States Carrots: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs;
Cost of Duty; Montreal, Winnipeg and Vancouver; Selected Data by Month, 1974

Month of Shipment	Montreal				Winnipeg				Vancouver					
	Source	Cost f.o.b.	Cost of Freight	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
January	Calif.	8.4	3.7	12.1	-	-	-	-	-	Calif.	6.8	2.5	.5	9.6
	-	-	-	-	-	-	-	-	-	"	7.3	2.5	.5	10.3
	-	-	-	-	-	-	-	-	-	"	7.3	2.9	.5	10.7
February	-	-	-	-	-	-	-	-	-	Calif.	6.8	2.9	.5	10.2
	-	-	-	-	-	-	-	-	-	"	6.8	2.6	.5	9.9
	-	-	-	-	-	-	-	-	-	"	6.8	2.5	.5	9.8
March	-	-	-	-	Calif.	8.3	4.9	.5	13.8	Calif.	6.3	2.6	.5	9.4
	-	-	-	-	"	8.3	4.7	.5	13.6	"	6.3	2.6	.5	9.4
April	-	-	-	-	-	-	-	-	-	Calif.	5.7	2.8	.5	9.0
May	Calif.	8.4	4.2	12.6	-	-	-	-	-	Calif.	8.6	2.9	-	11.5
	-	-	-	-	-	-	-	-	-	"	9.2	2.6	-	11.8
	-	-	-	-	-	-	-	-	-	"	9.7	2.8	-	12.5
	-	-	-	-	-	-	-	-	-	"	10.7	2.6	-	13.3
June	-	-	-	-	-	-	-	-	-	Calif.	10.7	2.8	-	13.5
	-	-	-	-	-	-	-	-	-	"	10.3	2.8	-	13.1
	-	-	-	-	-	-	-	-	-	"	10.2	2.8	-	13.0
	-	-	-	-	-	-	-	-	-	"	8.3	2.7	-	11.0
	-	-	-	-	-	-	-	-	-	"	9.7	2.8	-	12.5
	-	-	-	-	-	-	-	-	-	"	8.9	2.8	-	11.7
July	Calif.	9.9	4.4	14.3	Calif.	9.8	5.8	-	15.6	Calif.	9.2	2.8	-	12.0
October	Calif.	9.9	4.8	14.7	-	-	-	-	-	-	-	-	-	-
	"	9.9	5.7	15.6	-	-	-	-	-	-	-	-	-	-
December	Calif.	9.8	4.3	14.0	-	-	-	-	-	Calif.	12.8	2.8	.5	16.1
	"	9.9	4.3	14.1	-	-	-	-	-	"	10.7	2.8	.5	14.0
	-	-	-	-	-	-	-	-	-	"	9.7	2.9	.5	13.1
	-	-	-	-	-	-	-	-	-	"	8.8	3.0	.5	12.3
	-	-	-	-	-	-	-	-	-	"	8.6	3.3	.5	12.4

Source: Tariff Board Survey.

Appendix Table 15a

Carrots: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by States,
1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
Arizona		2,600	3,800	3,800	2,400	3,150
California		26,300	30,000	33,700	34,300	31,075
Michigan		5,200	4,800	6,100	5,600	5,425
Texas		25,900	25,500	23,600	19,300	23,575
Washington		2,000	2,600	3,600	3,300	2,875
Wisconsin		2,800	2,300	4,500	4,000	3,400
Other States		<u>5,980</u>	<u>6,800</u>	<u>8,000</u>	<u>8,450</u>	<u>7,308</u>
Total	78,048	70,780	75,800	83,300	77,350	76,808
- Production '000 lb. -						
Arizona		49,400	64,600	41,800	39,900	48,925
California		864,100	1,007,300	994,100	1,150,600	1,004,025
Michigan		122,200	100,800	152,400	132,700	127,025
Texas		384,800	329,900	361,200	290,500	341,600
Washington		78,000	118,300	164,200	146,000	126,625
Wisconsin		119,000	94,300	185,100	193,000	147,850
Other States		<u>222,300</u>	<u>245,300</u>	<u>306,800</u>	<u>281,700</u>	<u>264,025</u>
Total	1,810,980	1,839,800	1,960,500	2,205,600	2,234,400	2,060,075
- Average Yield lb. -						
Arizona		19,000	17,000	11,000	16,625	15,532
California		32,856	33,577	29,499	33,545	32,310
Michigan		23,500	21,000	24,984	23,696	23,415
Texas		14,857	12,937	15,305	15,052	14,490
Washington		39,000	45,500	45,611	44,242	44,043
Wisconsin		42,500	41,000	41,133	48,250	43,485
Other States		<u>37,174</u>	<u>36,074</u>	<u>38,350</u>	<u>33,337</u>	<u>36,128</u>
Total	23,203	25,993	25,864	26,478	28,887	26,821

Appendix Table 15a (concl.)

Carrots: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by States,
1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Farm Value \$'000 -						
Arizona		4,066	5,032	2,674	2,985	3,689
California		48,629	55,057	52,203	62,672	54,640
Michigan		8,436	7,593	10,849	12,013	9,723
Texas		21,873	21,893	23,027	20,049	21,710
Washington		1,954	2,508	3,369	3,851	2,921
Wisconsin		2,526	1,826	3,376	5,951	3,420
Other States		<u>6,081</u>	<u>6,840</u>	<u>9,952</u>	<u>10,879</u>	<u>8,438</u>
Total	74,346	93,565	100,749	105,450	118,400	104,541
- Farm Value ¢ per lb. -						
Arizona		8.2	7.8	6.4	7.5	7.5
California		5.6	5.5	5.3	5.4	5.4
Michigan		6.9	7.5	7.1	9.1	7.7
Texas		5.7	6.6	6.4	6.9	6.4
Washington		2.5	2.1	2.1	2.6	2.3
Wisconsin		2.1	1.9	1.8	3.1	2.3
Other States		2.7	2.8	3.2	3.9	3.2
Total	4.1	5.1	5.1	4.8	5.3	5.1

Source: U.S. Department of Agriculture.

Appendix Table 15b

Carrots: Fresh Market Production, Farm Value and Farm Value per Pound, United States, by States, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Production '000 lb. -					
Arizona	49,400	64,600	41,800	39,900	48,925
California	611,700	759,700	672,500	783,500	706,850
Michigan	107,300	85,800	118,800	108,500	105,100
Texas	283,100	244,100	308,500	231,500	266,800
Washington	17,200	19,300	24,000	20,600	20,275
Wisconsin	17,700	12,300	19,300	33,000	20,575
Other States	<u>70,700</u>	<u>71,300</u>	<u>95,800</u>	<u>87,300</u>	<u>81,275</u>
Total	1,157,100	1,257,100	1,280,700	1,304,300	1,249,800
- Farm Value \$'000 -					
Arizona	4,066	5,032	2,674	2,985	3,689
California	44,121	51,284	47,299	56,193	49,724
Michigan	8,262	7,405	10,257	11,184	9,277
Texas	19,343	19,730	21,499	18,058	19,658
Washington	1,443	1,627	1,925	1,851	1,712
Wisconsin	1,391	834	1,436	2,247	1,477
Other States	<u>4,518</u>	<u>4,739</u>	<u>7,041</u>	<u>7,081</u>	<u>5,845</u>
Total	83,144	90,651	92,131	99,599	91,382
- Farm Value ¢ per lb. -					
Arizona	8.2	7.8	6.4	7.5	7.5
California	7.2	6.8	7.0	7.2	7.0
Michigan	7.7	8.6	8.6	10.3	8.8
Texas	6.8	8.1	7.0	7.8	7.4
Washington	8.4	8.4	8.0	9.0	8.4
Wisconsin	7.9	6.8	7.4	6.8	7.2
Other States	6.4	6.6	7.3	8.1	7.2
Total	7.2	7.2	7.2	7.6	7.3

Source: U.S. Department of Agriculture.

**Carrots: Processing Market Production, Farm Value
and Farm Value per Pound, United States,
by States, 1971-1974**

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Production, '000 lb. -					
California	252,400	247,600	321,600	367,100	297,175
Michigan	14,900	15,000	33,600	24,200	21,925
Texas	101,700	85,800	52,700	59,000	74,800
Washington	60,800	99,000	140,200	125,400	106,350
Wisconsin	101,300	82,000	165,800	160,000	127,275
Other States	<u>188,400</u>	<u>174,000</u>	<u>211,000</u>	<u>194,400</u>	<u>191,950</u>
Total	719,500	703,400	924,900	930,100	819,475
- Farm Value, \$'000 -					
California	4,508	3,773	4,904	6,479	4,916
Michigan	174	188	592	829	446
Texas	2,530	2,163	1,528	1,991	2,053
Washington	511	881	1,444	2,000	1,209
Wisconsin	1,135	992	1,940	3,704	1,943
Other States	<u>2,127</u>	<u>2,101</u>	<u>2,911</u>	<u>3,798</u>	<u>2,734</u>
Total	10,985	10,098	13,319	18,801	13,301
- Farm Value, ¢ per lb. -					
California	1.8	1.5	1.5	1.8	1.7
Michigan	1.2	1.3	1.8	3.4	2.0
Texas	2.5	2.5	2.9	3.4	2.7
Washington	0.8	0.9	1.0	1.6	1.1
Wisconsin	1.1	1.2	1.2	2.3	1.5
Other States	1.1	1.2	1.4	2.0	1.4
Total	1.5	1.4	1.4	2.0	1.6

Source: U.S. Department of Agriculture.

Carrots: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966 to 1975

Year	(a)			(b)			(c)		
	Maritime Provinces			Central Canada			Western Canada		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	Aug. 23	Feb. 27	188	June 29	Mar. 20	264	July 8	Mar. 6	241
1967	-	-	-	June 27	Jan. 22	209	July 20	Jan. 22	186
1968	Aug. 31	Mar. 31	212	June 18	Mar. 25	280	June 28	Mar. 19	264
1969	Sept. 23	Feb. 16	146	Apr. 1 July 9	Apr. 10 Mar. 31	9 265	July 9	Mar. 13	247
1970	Sept. 10	Mar. 12	183	Apr. 1 July 7	Apr. 14 Mar. 31	13 267	July 1	Mar. 31	273
1971	Aug. 20	Mar. 12	205	Aug. 31	Mar. 31	213	July 8	Mar. 31	267
1972	Aug. 23	Mar. 31	219	July 14	Mar. 31	260	July 6	Mar. 31	268
1973	Aug. 24	Mar. 31	220	Apr. 1	May 9	38	June 29	Mar. 31	275
1974	Apr. 1 Sept. 20	May 3 Mar. 31	32 192	Apr. 17 Mar. 11	May 10 Mar. 31	24 21	Apr. 1 July 16	Apr. 19 Mar. 31	18 258
1975	-	-	-	Apr. 1	Apr. 4	3	July 22	Mar. 31	253

(a) Government fiscal year commencing April 1st; ending March 31st of the following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Carrots: Dutiable Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Imports			Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%			
1966	78,166	63,209	80.9	4.9	1.0	20.4
1967	74,124	61,182	82.5	4.5	1.0	22.2
1968	88,139	76,644	87.0	4.9	.9 (a)	18.4
1969	67,161	54,038	80.5	5.6	.5	8.9
1970	77,090	58,005	75.2	4.8	.5	10.4
Average 1966-70	76,936	62,616	81.4	4.9	.8	16.3
1971	65,957	50,358	76.3	5.6	.5	8.9
1972	76,698	54,090	70.5	5.7	.5	8.8
1973	64,174	43,239	67.4	5.9	.5	8.5
1974	63,172	48,152	76.2	5.3	.5	9.4
1975	74,664	60,309	80.8	8.7	.5	5.7
Average 1971-75	68,933	51,230	74.3	6.2	.5	8.1

(a) Specific rate was 0.8 ct. per pound from January 1 to June 3.

Source: Statistics Canada.

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CAULIFLOWER

Cauliflower (Brassica oleracea, var. botrytis) belongs to the cabbage family and is closely related to broccoli and Brussels sprouts. The number of distinct varieties of cauliflower is quite large, ranging from small foliaged and extremely early types grown in India, to the tall and late maturing Mediterranean types.

Cauliflower is a biennial plant, producing an edible head of compact flowers. It prefers a comparatively cool temperature, plenty of moisture, considerable humidity and heavy applications of fertilizer. Since it does not adapt well to warm growing conditions, it is planted during the cool season (free from frost) of early spring and late autumn in the United States and Canada. In both countries, cauliflower is most commonly grown in areas bordering large bodies of water where naturally cool conditions prevail. In the United States, these areas include primarily the Pacific coast, and Long Island in New York, and, in Canada, southern Ontario and Quebec. In addition, a few areas in the southern United States such as the Salt River Valley of Arizona and parts of Texas also produce considerable amounts of cauliflower under irrigation during winter months.

Domestic production of cauliflower in 1974 reached a total of almost 36 million pounds with a farm value of \$3.9 million. It is, therefore, a relatively minor crop in Canada with production largely confined to Ontario, Quebec, and British Columbia. There have been no marked changes in per capita consumption in recent years.

GROWING, HARVESTING AND MARKETING

Cauliflower can be grown in Canada on many soil types, such as clay loams and muck, but sandy silt loams are preferred. The soil should contain an abundance of organic matter. Good drainage is particularly important. It is relatively difficult to grow cauliflower successfully; competent management and availability of an adequate amount of skilled labour at the proper time are essential. Early cauliflower plantings are usually established from seedlings grown in the greenhouse or hotbed. For a fall crop, however, seedlings are obtained from outdoor seed-beds, sown six to eight weeks before field plantings. For the early crop, transplants are set out in about early May and for the fall crop, in late June. In Canada, seeding and transplanting are done primarily by hand. Direct seeding for the fall crop is feasible and is being adopted to a limited extent in Canada by some growers who are short of seasonal labour. Frequent cultivation is required to prevent the growth of weeds and surface crusting.

The proper time for harvesting is when the heads or curds are snowy white, fully developed and compact. The most desirable size of cauliflower head is about 6 inches in diameter. Cauliflower must be hand cut and trimmed to suit the packing method. As the plants do not all develop heads at a uniform rate, workers have to go over the field from day to day in order to select the heads to be harvested. The use of machinery for cauliflower harvesting is not common at the present time.

Another aspect of growing cauliflower for the fresh market that adds to its high labour requirements is that the head turns yellow in the sun. In order to retain the desirable whiteness it is necessary to cover the maturing head with the plant's leaves by tying them together or by breaking them. This is a manual operation.

On the basis of information obtained with respect to Ontario, in recent years about 80 to 90 per cent of the cauliflower crop is consumed in fresh form and is available from mid June to early November. Cauliflower for processing is grown under contract at an agreed price per delivered ton. Processed cauliflower is sold to consumers in frozen form and is also used as an ingredient in mixed pickles.

For long distance shipment, cauliflower heads are over-wrapped in transparent film and packed in fibreboard boxes (containing mostly two layers of 12 heads each), nailed wooden boxes (one layer) or wire-bound crates, each holding 12 heads weighing between 21 and 25 pounds net. There are also crates of other sizes.

Cauliflower heads deteriorate rapidly and can be stored for a maximum of only 4 weeks at 0°C. Chemical treatment may also be required to prevent discolouration, excessive softening, and off-flavours and odours upon cooking.

ACREAGE, YIELD, PRODUCTION AND FARM VALUE

Total cauliflower acreage increased from an annual average of 2,952 acres in the period 1961-65 to 3,385 acres during 1971-74, an increase of approximately 15 per cent (see Table 1). According to the Census of Canada, in 1971 there were 1,408 reporting farms producing cauliflower on a commercial basis from a total of 3,872 acres. Thus the area devoted to cauliflower growing averaged 2.75 acres per grower (see Appendix Table 1).

During the 1971-74 period, Ontario led all other provinces by a wide margin in cauliflower acreage, with 1,428 acres or 42 per cent of the national total, followed by Quebec with 925 acres or 27 per cent and British Columbia with 690 acres or 20 per cent.

Although the average acreage under crop increased by 15 per cent between the periods 1961-65 and 1971-74, production advanced by only 4 per cent from 33.2 million pounds to 34.6 million pounds. This comparatively small increase in production reflected a drop of 9 per cent in average yield per acre, from 11,232 pounds to 10,216 pounds. The average yield in 1971-74 was down in all regions of Canada with the sole exception of Ontario where a gain of some 6 per cent was registered at 14,937 pounds per acre, which was the highest among all provinces. In British Columbia, the average yield declined by a substantial 34 per cent, between 1961-65 and 1971-74.

Ontario with both the largest acreage and the highest yields has been the predominant cauliflower producing province in Canada, with an annual average output in 1971-74 of 21.3 million pounds, or 62 per cent of total domestic production. The marked

Table 1 : Cauliflower: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes	86	258	100	170	220	290	195	+126.7
Quebec	826	850	960	890	970	880	925	+ 12.0
Ontario	1,366	1,536	1,420	1,450	1,440	1,400	1,428	+ 4.5
Manitoba	188	142	160	150	150	130	148	- 21.3
B.C.	486	534	600	770	760	630	690	+ 42.0
Canada	2,952	3,320	3,240	3,430	3,540	3,330	3,385	+ 14.7
- Production, '000 lb. -								
Maritimes	784	1,941	773	1,069	1,280	1,803	1,231	+ 57.0
Quebec	6,181	7,262	9,120	4,094	3,686	6,512	5,853	- 5.3
Ontario	19,311	21,062	20,154	20,829	21,834	22,504	21,330	+ 10.5
Manitoba	1,434	1,077	1,120	1,230	1,380	650	1,095	- 23.6
B.C.	5,448	4,998	5,011	4,589	6,341	4,343	5,071	- 6.9
Canada	33,158	36,340	36,178	31,811	34,521	35,812	34,581	+ 4.3
- Average Yield, lb. -								
Maritimes	9,116	7,523	7,730	6,288	5,818	6,217	6,313	- 30.7
Quebec	7,483	8,544	9,500	4,600	3,800	7,400	6,328	- 15.4
Ontario	14,137	13,712	14,193	14,365	15,163	16,074	14,937	+ 5.7
Manitoba	7,628	7,584	7,000	8,200	9,200	5,000	7,399	- 3.0
B.C.	11,210	9,360	8,352	5,960	8,343	6,894	7,349	- 34.4
Canada	11,232	10,946	11,166	9,274	9,752	10,754	10,216	- 9.0
- Farm Value, \$'000 -								
Maritimes	46	119	61	82	142	207	123	+167.4
Quebec	285	364	490	332	332	736	473	+ 66.0
Ontario	960	1,370	1,537	1,795	1,801	2,227	1,840	+ 91.7
Manitoba	72	90	101	137	166	104	127	+ 76.4
B.C.	311	379	420	518	741	602	570	+ 83.3
Canada	1,674	2,322	2,609	2,864	3,182	3,876	3,133	+ 87.2
- Farm Value, ¢ per lb. -								
Maritimes	5.9	6.1	7.9	7.7	11.1	11.5	10.0	+ 69.5
Quebec	4.6	5.0	5.4	8.1	9.0	11.3	8.1	+ 76.1
Ontario	5.0	6.5	7.6	8.6	8.2	9.9	8.6	+ 72.0
Manitoba	5.0	8.4	9.0	11.1	12.0	16.0	11.6	+132.0
B.C.	5.7	7.6	8.4	11.3	11.7	13.9	11.2	+ 96.5
Canada	5.1	6.4	7.2	9.0	9.2	10.8	9.1	+ 78.4

Source: Statistics Canada.

reduction in the average yield for British Columbia resulted in a decline in total production in that province from 5.4 million pounds in 1961-65 to 5.1 million pounds in 1971-74, notwithstanding a 42 per cent increase in total acreage.

The total farm value of cauliflower increased remarkably in all areas of Canada between 1961-65 and 1971-74. For Canada as a whole, the increase amounted to 87 per cent, from an annual average of \$1.7 million to \$3.1 million. The largest proportionate gain, 167 per cent, occurred in the Maritimes, followed by Ontario, up 92 per cent. However, on a per pound basis, the smallest increase in farm values was in Ontario, although the average of 8.6 cents for that province during 1971-74 was still a substantial 72 per cent above the 5 cents realized in 1961-65. Per pound farm values in 1971-74 were the highest in Manitoba, 11.6 cents, and British Columbia, 11.2 cents. In Manitoba, in particular, the farm value has shown a very substantial average increase, up 132 per cent between the aforementioned periods.

SUPPLY AND DISPOSITION

Of the average of 34.6 million pounds of cauliflower produced in Canada during 1971-74, approximately 27.9 million pounds, or 81 per cent, was for domestic fresh market consumption, and 6.5 million pounds or 19 per cent was consumed in processed form. A small amount - 112 thousand pounds - was exported. This utilization pattern is not substantially different from the 1961-65 period (see Table 2), although the proportion processed has increased.

The quantity of processed imports, e.g., frozen cauliflower, is not known as separate statistical data are not recorded for this product. In any event, the quantity is not believed to be significant. Fresh imports for processing are small, e.g., 33,000 pounds in 1974.

Total domestic disappearance of cauliflower in Canada, exclusive of processed imports, was 50.4 million pounds during the period 1971-74, comprising 34.5 million pounds, or 68 per cent, domestic produce and 15.9 million pounds, or 32 per cent, imported cauliflower. Some 13 per cent was consumed in processed form and 87 per cent in fresh form. Total domestic disappearance has remained fairly constant; consumption in 1971-74 was up only 7.5 per cent over 1961-65. On a per capita basis, total domestic disappearance has declined marginally from 2.5 pounds to 2.3 pounds.

Total fresh imports as a per cent of total domestic disappearance increased their share of the market slightly, from 29.6 per cent in 1961-65 to 31.6 per cent in 1971-74. While the quantity of imports for both the fresh and processed markets rose, from an average 13.9 million pounds to 15.9 million pounds, only for fresh market consumption did imports increase their share of the total market, from 33 per cent to 36 per cent during the periods under review. Although fresh imports for processing grew by 16 per cent, they actually lost ground as a per cent of total processed consumption, from slightly more than 1 per cent to just under 1 per cent.

Table 2: Cauliflower: Supply and Disposition, Canada, 1961-65 to 1971-74

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
<u>Total Production</u>	33,158	36,340	36,178	31,811	34,521	35,812	34,581	+ 4.3
<u>Total Imports (fresh)</u>	13,867	12,456	12,731	17,891	15,507	17,502	15,907	+14.7
<u>Total Supply Available</u>	47,025	48,796	48,909	49,702	50,028	53,314	50,488	+ 7.4
Available for processing	4,767	6,734	6,685	5,982	6,934	6,780	6,596	+38.4
From domestic production	4,711 (a)	6,630 (c)	6,685	5,907 (b)	6,784 (b)	6,747	6,531	+38.6
Imported for processing	56	104	-	75	150	33	65	+16.1
Available for fresh market	42,258	42,062	42,224	43,720	43,094	46,534	43,892	+ 3.9
From domestic production	28,447	29,710	29,493	25,904	27,737	29,065	28,050	- 1.4
Imported	13,811	12,352	12,731	17,816	15,357	17,469	15,842	+14.7
<u>Total Exports (fresh)</u>	147	65	118	126	137	67	112	-23.8
<u>Total Domestic Disappearance</u>	46,878	48,731	48,791	49,576	49,891	53,247	50,376	+ 7.5
Consumed in processed form	4,767	6,734	6,685	5,982	6,934	6,780	6,596	+38.4
From domestic production	4,711 (a)	6,630 (c)	6,685	5,907 (b)	6,784 (b)	6,747	6,531	+38.6
Imported fresh	56	104	-	75	150	33	65	+16.1
Fresh market consumption	42,111	41,997	42,106	43,594	42,957	46,467	43,780	+ 4.0
From domestic production	28,300	29,645	29,375	25,778	27,600	28,998	27,938	- 1.3
Imported	13,811	12,352	12,731	17,816	15,357	17,469	15,842	+14.7

(a) Three-year average only, omitting 1964 and 1965.

(b) Tariff Board estimate.

(c) Three-year average, omitting 1967 and 1969.

Source: Statistics Canada and Agriculture Canada.

During the period under review, the most pronounced area of growth in fresh cauliflower utilization was in the quantity consumed in processed form. Processed cauliflower consumption increased from an average of 4.8 million pounds in 1961-65 to 6.6 million pounds in 1971-74, an increase of about 38 per cent. More than 99 per cent of the cauliflower processed in Canada is grown domestically.

Average consumption of fresh market cauliflower remained relatively stable between 1961-65 and 1971-74, increasing by only 4 per cent. However, domestic producers appear to have suffered a marginal reduction in their share of the total fresh market from 67 per cent to 64 per cent. Fresh market consumption of domestic cauliflower declined marginally from 28.3 million to 27.9 million pounds. Imported cauliflower for fresh consumption rose from 13.8 million pounds to 15.8 million, or by 15 per cent.

During the domestic marketing season (approximately July 1 to November 30), imports as a percentage of total fresh consumption averaged 10.7 per cent per annum during 1971-74. This represented an increase from the 7.6 per cent recorded during 1961-65 and the 6.2 per cent recorded during 1966-70 (see Table 3). Nevertheless, during 1971-74 some 90 per cent of fresh cauliflower consumption during the domestic on-season period was from Canadian output. The import share of the domestic fresh market during the Canadian marketing season was highest during the shoulder months July and November, 17.3 and 38.1 per cent respectively; during the peak production months of August, September, and October imports were small, accounting for some 6 per cent of consumption only during 1971-74.

Table 3: Cauliflower: Fresh Production, Fresh Imports and Fresh Consumption, On-Season, Off-Season, 1961-1974

	<u>1961-65</u>	<u>1966-70</u>	<u>1971-74</u>
	- '000 lb. -		
Production (a)			
On-season (b)	25,584	27,965	27,088
Off-season (b)	<u>2,717</u>	<u>1,681</u>	<u>851</u>
Total	28,300	29,645	27,938
Imports (a)			
On-season (b)	2,112	1,855	3,241
Off-season (b)	<u>11,699</u>	<u>10,600</u>	<u>12,600</u>
Total	13,811	12,456	15,842
Consumption (a)			
On-season (b)	27,696	29,820	30,329
Off-season (b)	<u>14,416</u>	<u>12,281</u>	<u>13,451</u>
Total	42,111	42,101	43,780
Imports as % of Consumption (a)			
On-season (b)	7.6	6.2	10.7
Off-season (b)	81.2	86.3	93.7
Total	32.8	29.6	36.2

(a) July-November growing season.

(b) December-June.

Source: Derived from Statistics Canada and Agriculture Canada data.

IMPORTS AND EXPORTS

Almost all imports have been from the United States; in some years a small quantity has originated from Mexico and France (see Appendix Table 5). Of the total imports from the United States during 1971-74 well over 90 per cent have been from California, with Florida and Arizona being subsidiary sources of supply (see Appendix Table 8). In 1974, the central provinces, Ontario and Quebec, accounted for 54 per cent of total imports.

Canadian exports of cauliflower are almost entirely to the United States. These exports have comprised less than 1 per cent of Canadian output and have declined over the period under review.

PRICES

As previously indicated, the average farm value of cauliflower grown in Canada rose substantially in recent years from an average of 6.4 cents per pound in 1966-70 to 9.1 cents in 1971-74 (see Table 1). A high of 10.8 cents was reached in 1974. The farm values of cauliflower have tended to be lowest in the major producing provinces of Ontario and Quebec and highest in Manitoba and British Columbia.

The foregoing values are overall averages for cauliflower sold to both the fresh and processing markets.

As with most vegetables, cauliflower sold for processing realized a lower price than that received on the fresh market (see Table 4). For the period 1971-74, the average return to the farmer for cauliflower for processing was 7.7 cents per pound or approximately 18 per cent below the average of 9.4 cents for the fresh market product.

Table 4: Cauliflower: Estimated Farm Values When Sold
for Processing and for Fresh
Market, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- ¢ per lb. -				
Sold for processing	5.5	8.0	7.8	9.3	7.7
Sold to fresh market	7.6	9.2	9.6	11.2	9.4
Total Production	7.2	9.0	9.2	10.8	9.1

Source: Derived from Statistics Canada data.

Average weekly wholesale-to-retail selling prices for domestic and imported cauliflower are summarized in Table 5; more detailed data are contained in Appendix Tables 13a and 13b.

Table 5: Average Wholesale to Retail Selling Prices for Domestic and Imported Cauliflower in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974

	Halifax		Montreal		Toronto		Winnipeg		Vancouver	
	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.
- ¢ per lb. -										
Jan.	-	45.4	-	33.5	-	33.5	-	33.0	-	35.0
Feb.	-	45.7	-	33.3	-	34.2	-	34.0	-	33.5
Mar.	-	41.5	-	34.1	-	32.0	-	34.6	-	34.3
Apr.	-	38.9	-	32.1	-	35.6	-	30.5	-	33.2
May	-	43.5	-	29.9	-	30.7	-	29.4	-	31.5
June	-	36.4	18.0	26.0	19.9	30.4	-	27.0	21.8	28.9
July	33.5	38.6	20.5	-	26.9	33.4	24.5	32.4	22.7	37.4
Aug.	25.0	33.6	22.1	-	23.2	33.2	27.3	33.3	-	35.8
Sept.	21.7	-	18.5	-	25.5	-	25.5	33.1	-	-
Oct.	25.6	-	22.3	29.0	24.2	28.7	25.3	31.7	-	-
Nov.	27.2	-	19.3	30.0	20.7	29.7	22.1	32.8	-	33.1
Dec.	-	42.5	-	30.7	-	31.2	21.0	31.6	-	33.1

Source: Appendix Tables 10a and 10b.

It will be noted that in all cases where direct comparisons can be made, the price of imported cauliflower was higher and in many cases, substantially higher than the domestic product. Thus, the data in Table 5 would suggest that imported cauliflower is at a marked price disadvantage during the domestic marketing season. It will be recalled that imports of fresh market cauliflower are but a small proportion of total consumption during the Canadian growing season.

The information collected by the Board with respect to the landed cost of imported cauliflower at various Canadian market centres is summarized in Table 6; the more complete data on which this table is based can be found in Appendix Tables 11a and 11b. It will be noted that the cost of the duty, where applicable, was substantially below the cost of freight, brokerage and other transportation costs. Consequently, these latter costs afforded much more protection to domestic growers than did the duty. As a percentage of the f.o.b. cost in 1974, freight, brokerage, etc. ranged from 29 to 35 per cent in Toronto, 26 to 41 per cent in Winnipeg and 10 to 26 per cent in Vancouver.

Table 6: The Landed Cost of Imported Cauliflower in Toronto, Winnipeg, and Vancouver, 1972-1974

		Cost f.o.b.	Freight, Brokerage, etc.	Duty	Total Landed Cost
- range in ¢ per lb. -					
Toronto	1972	13.3-19.9	4.3-5.7	0.8-2.0	20.3-27.1
	1973	16.7-20.9	5.5-7.6	Free-0.8	23.3-26.5
	1974	15.2-20.7	5.3-6.0	Free-0.8	21.2-26.7
Winnipeg	1974	15.0-23.0	5.5-7.3	Free-2.0	22.0-29.3
Vancouver	1974	14.1-27.4	3.0-4.0	Free-2.2	17.1-30.5

Source: Appendix Tables 11a and 11b.

CANADA-UNITED STATES COMPARISONS

Cauliflower production in the United States in 1974 was some 303.3 million pounds (see Appendix Table 12a). Canadian production in that year was 35.8 million pounds or about 12 per cent of the United States output. On a per capita basis Canadian production in 1974 slightly exceeded that of the United States. U.S. production increased from an annual average of 250.3 million pounds in 1966-70 to 285.5 million pounds in 1971-74, an increase of 14 per cent; this compares with a decrease of about 5 per cent in Canadian production over the same period.

The average yield in 1974 in the United States was 9,428 pounds per acre which was some 12 per cent below the Canadian average of 10,754 pounds. California, the source of about 96 per cent of Canadian imports and over 80 per cent of total U.S. output in 1974, had a yield of 9,558 pounds in that year. By comparison, Ontario with 63 per cent of Canadian output, had an average of 16,074 pounds, 68 per cent greater than the Californian yield.

The average farm value in the United States during 1971-74 was 11.4 cents per pound compared with 9.1 cents in Canada. In California, the average value was 11.1 cents, or almost 3 cents per pound above the 8.6 cents realized in Ontario but substantially the same as the average farm value of 11.2 cents recorded in British Columbia.

Approximately 48 per cent of total United States cauliflower output in 1971-74 was sold for processing; in Canada, during the same period, processors acquired an estimated 20 per cent of output and, on the basis of the Statistics Canada data (Table 4), paid an average of 7.7 cents per pound. By way of comparison, their U.S. counterparts paid an average of 1 cent less, i.e., 6.7 cents. On the other hand, with respect to production for the fresh market, average farm values in the United States were markedly higher: 15.9 cents per pound as compared to 9.4 cents in Canada.

The Board also examined cost data respecting cauliflower production in the United States and Canada (see Table 7). While the costs relating to the areas in question are not strictly comparable, due to the different reference periods, it would appear from the data available that growers in Ontario enjoy a distinct cost advantage over growers in California and New York. The average cost per pound for California fresh market cauliflower in 1972 was calculated to be 10.21 cents, which was substantially higher than the corresponding estimate of 7.03 cents per pound for Ontario cauliflower two years later. It should be noted that the yields in the samples are in all cases higher than the average yield reported for the province, or state, in question and, consequently, average unit costs of production are probably somewhat higher than those indicated. The differences would, however, remain.

Table 7: Cauliflower: Production Costs in Ontario and United States Growing Areas

	<u>Ontario</u>		<u>California</u>	<u>New York</u>
	<u>Bradford-Toronto</u>		<u>Fresh</u>	<u>Fresh</u>
	<u>Fresh Market</u>	<u>Processing</u>	<u>Market</u>	<u>Market</u>
	1974	1974	1972	1968-71
Yield, lb.	18,000	20,000	12,500	13,400
	- \$ per acre -			
<u>Pre-Harvest or</u>				
<u>Cultivation Costs</u>				
Labour	194.95	(286.74	68.00	147.17
Machines	91.79	(	76.00	71.31
Materials	159.00	159.66	117.00	130.06 ^(a)
Total	445.74	446.40	261.00	348.54
<u>Harvesting or</u>				
<u>Marketing Costs</u>				
Labour	270.00	..	..	..
Machines	18.90	..	..	..
Materials	360.00	..	..	..
Total	648.90	312.60	875.00	711.74
<u>Overhead Costs</u>				
Land charges	150.00	108.00	..	..
Other	20.94	17.04	..	..
Total	170.94	125.04	140.00	40.48
Total Costs	1,265.58	884.04	1,276.00	1,100.76
Total Costs (¢/lb.)	7.03	4.42	10.21	8.21

(a) Includes other costs.

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

TARIFF CONSIDERATIONS

Fresh cauliflower is classified under tariff item 8708-1, as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Cauliflower per pound	Free	$\frac{3}{4}$ ct. or 10 p.c. or Free	$\frac{3}{4}$ ct. or 10 p.c. or Free

The Free rate shall apply during the months of January, February, March, April and May.

During the remaining months in any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 20 weeks which may be divided into two separate periods, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

When subject to specific rates of duty and imported in packages five pounds or less, each, see additional duty following item 8731-1.

Tariff item 8708-1 is bound under GATT.

Free entry of cauliflower has applied to B.P. imports since 1935 (see Table 8). With respect to the Most-Favoured-Nation Tariff, ad valorem rates applied to cauliflower from 1935 to 1948, at which time the present $\frac{3}{4}$ cent per pound specific duty was introduced together with the provision for its application over a 20-week split period (reduced to 12 weeks from 1956-59, inclusive). From 1948 to 1959, a 10 per cent ad valorem rate was applicable to imports whenever the $\frac{3}{4}$ cent specific duty was not in force; in 1959 the duty-free period from January to April, inclusive, was introduced, and this was extended, in 1968, to include May. The 10 p.c. off-season rate was suspended from February 20, 1973 to June 30, 1974.

From 1935 to 1949, imports under the General Tariff were dutiable at 30 per cent ad valorem but not less than 2 cents per pound from May 15 to October 31. The present General Tariff rate of $\frac{3}{4}$ cent per pound (20 weeks) and 10 per cent ad valorem was imposed in 1950; since 1959, the rates have been the same as those under the Most-Favoured-Nation Tariff.

From April 10, 1959 to the present, cauliflower imported in packages weighing 5 pounds or less, each, have been subject to an additional duty of 5 p.c. M.F.N. and 10 p.c. Gen.

When imported into the United States from Canada, cauliflower is dutiable at 5.5 per cent ad valorem under item 135.50 if entered during the period from June 5 to October 15, inclusive, and at 12.5 per cent under item 135.51 at all other times.

The Horticultural Council in its brief to the Board proposed that the present specific duty of $\frac{3}{4}$ cent per pound be eliminated and replaced by a straight ad valorem seasonal duty of 15 per cent, i.e., an increase of 5 percentage points from the present off-season rate. It was further proposed that the period of application of the seasonal tariff be extended by 10 weeks to a maximum of 30 weeks, which could be split into two separate periods. The basis of the Council's proposal for an increase in duty was the erosion in the degree of protection afforded by the specific duty due to increases in the value for duty of cauliflower.

Table 8: Cauliflower, Rates of Duty for Selected Periods

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. ^(a)
1936-38	Free	15 p.c.	30 p.c.
1939-47	Free	10 p.c.	30 p.c.
1948-50 (May 31)	Free	$\frac{3}{4}$ ct. (20 weeks) 10 p.c.	30 p.c. ^(a)
1950 (June 1) - 1956 (June 29)	Free	$\frac{3}{4}$ ct. (20 weeks) 10 p.c.	$\frac{3}{4}$ ct. (20 weeks) 10 p.c.
1956 (June 30) - 1959 (April 9)	Free	$\frac{3}{4}$ ct. (12 weeks) 10 p.c.	$\frac{3}{4}$ ct. (20 weeks) 10 p.c.
1959 (April 10) - 1973 (Feb. 19)	Free	$\frac{3}{4}$ ct. (20 weeks) ^(b) 10 p.c. Free ^(c)	$\frac{3}{4}$ ct. (20 weeks) ^(b) 10 p.c. Free ^(c)
1973 (Feb. 20)	Free	$\frac{3}{4}$ ct. (20 weeks) ^(b) Free	$\frac{3}{4}$ ct. (20 weeks) ^(b) Free
1974 (July 1)	Free	$\frac{3}{4}$ ct. (20 weeks) ^(b) 10 p.c. Free ^(c)	$\frac{3}{4}$ ct. (20 weeks) ^(b) 10 p.c. Free ^(c)

(a) Not less than 2 cts. May 15-Oct. 31.

(b) Effective April 10, 1959 packages weighing five pounds or less, subject to an additional duty of 5 p.c. M.F.N., 10 p.c. Gen.

(c) Specified duty-free period: Jan.-Apr., 1959-1967; Jan.-May since 1968.

The Council also proposed retention of the additional duty on cauliflower when subject to a seasonal duty and imported in packages weighing 5 pounds or less but that the M.F.N. rate be increased as with other packaged vegetables, from 5 p.c. to 10 p.c.; this proposal is dealt with elsewhere in this report.

The Canadian Food Processors Association proposed a separate tariff item for cauliflower when imported for processing - "Cauliflower for manufacture" - at a seasonal rate of 10 per cent ad valorem to apply for a maximum of 20 weeks, with no provision for a split period.

The dates of application and removal of the seasonal specific duty since 1966 are given in Appendix Table 13. It will be noted that this duty has been regularly applied in central Canada (except for 1975), generally for the maximum allowable period of 140 days. The seasonal duty was not invoked in 1968 and 1969 in the Maritime Provinces; in other years the period of application extended from 105 to 140 days. In western Canada, the seasonal duty was

applied between 1966 and 1975 in only three instances for periods of 117 to 140 days. The non-application of the specific seasonal duty in western Canada (and central Canada in 1975) is probably a reflection of the erosion in protection afforded by the specific duty due to the increasing price of cauliflower imports, i.e., the 10 p.c. rate afforded a greater degree of tariff protection than the specific duty. In fact, it would appear that the specific equivalent of the ad valorem duty has, on average, been higher than $\frac{3}{4}$ cent per pound in every year since 1966 (see the average price of dutiable imports, Appendix Table 14).

From the information contained in Appendix Table 3, on the estimated monthly distribution of fresh shipments, it would appear that the present period of 20 weeks covers most of the domestic marketing season for this basically non-storable vegetable. For example, during 1971-74, 20 weeks or 140 days or the period from July 1 to October 31 - accounted for almost 90 per cent of average annual domestic fresh market shipments.

The proposal of the Horticultural Council for a 15 p.c. rate of duty on fresh cauliflower would increase the level of protection during the current period of application of the seasonal duty from $\frac{3}{4}$ cent per pound to approximately 2.55 cents per pound; the latter being based on an average unit import value of 17 cents per pound in 1974. During the 10-week period, for which the Council sought an extension of the application of the seasonal duty, the level of protection would increase from 10 p.c., the off-season rate, to 15 p.c., or from 1.7 cents per pound to 2.55 cents per pound. It should be noted that the proposal to extend the period of application of the seasonal duty by 10 weeks would mean that the existing duty-free period would remain unchanged, i.e., January to May inclusive.

If the tariff proposal of the Horticultural Council were implemented, it could be expected that the Canadian grower would receive more for the cauliflower produced by him, while the Canadian consumer would pay a higher price during the dutiable period. The Board estimated that the additional cost to the Canadian consumer of fresh market cauliflower could be as much as \$865,000, or 15 cents per family of four, and that growers benefits could be as much as \$515,000 or \$154 per acre.

With respect to the proposal of the Canadian Food Processors Association for a separate item for cauliflower when imported for processing at a proposed rate of 10 p.c., it should be noted that this rate is the same as the current off season rate. The proposed rate of 10 p.c. would, therefore, not constitute a higher cost for cauliflower to processors. On the other hand a single tariff item for both cauliflower for the fresh market and for processing would increase the cost of processing cauliflower as well as fresh market cauliflower.

A separate tariff item would be indicated if the difference in f.o.b. unit import values between the two uses were of a magnitude that would warrant separate tariff treatment, and if the volume of imports of processing cauliflower were important or were likely to become important. With respect to the latter, Canada has imported

small volumes only. As far as import prices are concerned, there is no information on unit import values separately for cauliflower for processing and for the fresh market. However, average farm values in Canada suggest that there is a relatively small difference between the two uses.

CONCLUSIONS

Cauliflower is a vegetable admirably suited to the growing conditions prevalent in many areas of Canada and one for which domestic growers appear to have a significantly higher yield and substantially lower per pound production costs than their counterparts in the United States.

Between the periods 1961-65 and 1971-74, production increased by a modest 4 per cent while fresh imports rose, on average, by some 15 per cent. The combined increase in domestic output and imports resulted in an increase in the total domestic disappearance (i.e., consumption) of 7.5 per cent.

The quantity of imports as a percentage of total consumption during the July to November main domestic marketing season increased slightly from 7.6 per cent to 10.7 per cent between the periods 1961-65 and 1971-74. Thus, Canada remains largely self-sufficient in cauliflower production during this period.

From the data available on wholesale-to-retail prices of domestic and imported cauliflower and from the data relating to comparative yields and production costs in Canada and the United States, it would seem that imports of cauliflower do not constitute a serious threat to the livelihood of Canadian producers. Such imports as occur during the domestic marketing season could reflect, at least in part, domestic supply shortages and/or difficulties in interregional transportation of this somewhat bulky, perishable vegetable.

Given the factors enumerated above, the Board concludes that Canadian growers of cauliflower are not at any major disadvantage vis-à-vis their foreign competitors. The Board recommends a seasonal specific duty of 1 cent per pound with a minimum ad valorem rate of 5 per cent under the Most-Favoured-Nation and General Tariff and Free under the British Preferential Tariff. The Board is of the opinion that the current 20-week period of application of the seasonal duty is sufficient to cover most of the Canadian production season, and therefore, recommends that the maximum period of application of the seasonal duty be 20 weeks and that this period may be divided into two separate periods, as presently provided for in tariff item 8708-1.

The Board moreover feels that imports should not be dutiable outside the main Canadian marketing season when they constitute almost the sole source of supply for Canadian consumers. It is recommended therefore that the 10 p.c. rate, currently applicable be abolished and that there be free entry when the seasonal duty is not in effect.

With respect to the proposal of The Canadian Horticultural Council that cauliflower continue to be subject to additional duty if imported in packages weighing 5 pounds or less, the Board is of the opinion, and so recommends, that this additional duty continue to apply. In accordance with its conclusions on this issue, as presented elsewhere in this report, the Board recommends that cauliflower be made subject to additional packaging duties of 5 p.c. M.F.N. and 10 p.c. Gen., for a period not to exceed 20 weeks in any 12-month period ending March 31.

In view of the very small quantity of fresh cauliflower imported for processing, and the low level of protection recommended for fresh cauliflower entering under tariff item 8708-1, the Board does not recommend the introduction of a new tariff item for cauliflower when imported for processing in Canada.

RECOMMENDATIONS

The Board recommends that tariff item 8708-1 be deleted from Schedule "A" of the Customs Tariff and the following item substituted therefor:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Cauliflower .. per pound	Free	1 ct. but not less than 5 p.c., or Free	1 ct. but not less than 5 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 20 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

**Cauliflower: Acreage and Number of Farms, by Province
and Region, 1961 and 1971**

	1961		1971		
	<u>No. of Acres</u>	<u>Acreage as % of Total</u>	<u>No. of Acres</u>	<u>Acreage as % of Total</u>	<u>No. of Farms Reporting</u>
Atlantic Region	129	4.0	100	2.6	121
Nfld.	2	0.1	2	0.1	11
P.E.I.	53	1.6	20	0.5	10
N.S.	44	1.4	51	1.3	65
N.B.	30	0.9	27	0.7	35
Central Region	2,452	76.2	2,747	70.9	954
Que.	761	23.7	958	24.7	284
Ont.	1,691	52.6	1,789	46.2	670
Western Region	634	19.7	1,025	26.5	331
Man.	178	5.5	144	3.7	72
Sask.	11	0.3	22	0.6	32
Alta.	39	1.2	29	0.7	51
B.C.	406	12.6	830	21.4	176
Canada ^(a)	3,216	100.0	3,872	100.0	1,408

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74
	- per cent -						
<u>Per Cent of Domestic Production:</u>							
Sold for Processing	14.2	18.3	18.5	18.6	19.7	18.8	18.9
Sold to Domestic Fresh Market	85.3	81.6	81.2	81.0	80.0	81.0	80.8
Exported	0.4	0.2	0.3	0.4	0.4	0.2	0.3
<u>Total Imports as Per Cent:</u>							
of Total Supply Available	29.5	25.5	26.0	36.0	31.0	32.8	31.5
of Total Domestic Disappearance	29.6	25.6	26.1	36.1	31.1	32.9	31.6
<u>Fresh Imports as Per Cent:</u>							
of Fresh Market Availability	32.7	29.4	30.2	40.8	35.6	37.5	36.1
of Fresh Market Consumption	32.8	29.4	30.2	40.9	35.7	37.6	36.2
<u>Per Cent of Fresh Market Consumption:</u>							
From Domestic Production	67.2	70.6	69.8	59.1	64.3	62.4	63.8
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	10.2	13.8	13.7	12.1	13.9	12.7	13.1
Consumed Fresh	89.8	86.2	86.3	87.9	86.1	87.3	86.9
<u>Production as % of Total Domestic Disappearance</u>	70.7	74.6	74.1	64.2	69.2	67.3	68.6

(a) Source: Table 2.

Appendix Table 3

Cauliflower: Estimated Monthly Distribution of Fresh Shipments^(a)
1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
		-	thousand pounds		-	
Jan.	6	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	6	-	-	-	-	-
Apr.	21	-	-	-	-	-
May	44	9	-	8	28	-
June	1,568	770	999	675	911	493
July	3,288	2,886	3,055	3,044	3,036	2,407
Aug.	5,695	6,036	4,759	5,720	6,155	7,510
Sept.	7,817	8,510	10,340	7,695	6,872	9,134
Oct.	8,461	7,439	7,814	6,976	8,004	6,960
Nov.	2,704	2,217	2,233	1,660	2,539	2,436
Dec.	36	72	176	-	55	58
Year	29,645	27,938	29,375	25,778	27,600	28,998

(a) Domestic production for domestic fresh market.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Cauliflower: Estimated Monthly Distribution of Fresh Market
Consumption, 1961-1974

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent	-	-	thousand pounds	-	per cent
Jan.	100.0	99.6	-	1,739	1,739	100.0
Feb.	100.0	100.0	-	1,655	1,655	100.0
Mar.	100.0	99.7	-	2,014	2,014	100.0
Apr.	100.0	99.0	-	1,670	1,670	100.0
May	91.1	96.6	9	1,874	1,883	99.5
June	27.5	39.7	770	1,766	2,536	69.6
July	6.0	11.6	2,886	605	3,491	17.3
Aug.	3.9	3.8	6,036	339	6,375	5.3
Sept.	2.7	2.6	8,510	309	8,819	3.5
Oct.	4.3	3.8	7,439	624	8,063	7.7
Nov.	32.3	19.2	2,217	1,364	3,581	38.1
Dec.	98.3	97.5	72	1,882	1,954	96.3
Total	32.8	29.4	27,938	15,842	43,780	36.2

Source: Derived from Statistics Canada and Agriculture Canada data.

Cauliflower: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
		-	thousand pounds	-
1966	10,776	-	-	10,776
1967	12,744	69	-	12,812
1968	12,156	81	-	12,238
1969	12,703	-	-	12,703
1970	13,750	-	-	13,750
Average 1966-70	12,426	30	-	12,456
1971	12,731	-	-	12,731
1972	17,783	88	20	17,891
1973	15,466	3	38	15,507
1974	17,501	-	1	17,502
1975	20,680	-	-	20,680
Average 1971-75	16,832	18	12	16,862

Source: Statistics Canada.

Cauliflower: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		-	thousand pounds	-		
Atlantic Region	201	190	342	331	339	417
Nfld.	12	14	3	29	4	11
P.E.I.	1	1	1	1	1	2
N.S.	120	92	177	126	143	189
N.B.	68	84	161	176	191	215
Central Region	6,873	5,829	7,131	7,624	9,549	11,109
Que.	1,758	1,828	2,353	2,904	3,098	4,326
Ont.	5,116	4,001	4,777	4,720	6,451	6,782
Western Region	5,381	6,712	10,418	7,551	7,613	9,155
Man.	578	732	867	759	1,126	1,311
Sask.	445	536	553	678	604	846
Alta.	1,963	2,402	2,483	2,069	2,192	2,775
B.C.	2,395	3,041	6,515	4,045	3,692	4,222
Canada	12,456	12,731	17,891	15,507	17,502	20,680

Source: Statistics Canada.

Cauliflower: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	1,461	11.7	1,870	11.1	1,538	1,857	2,146	2,364
Feb.	1,456	11.7	1,801	10.7	1,754	1,768	1,481	2,358
Mar.	1,896	15.2	2,043	12.1	2,724	2,112	1,572	2,128
Apr.	2,072	16.6	1,919	11.4	1,520	1,181	1,951	2,887
May	1,263	10.1	2,132	12.6	2,162	1,702	2,416	3,129
June	1,040	8.3	1,923	11.4	1,897	1,265	2,231	2,520
July	434	3.5	695	4.1	650	587	719	1,044
Aug.	230	1.8	410	2.4	345	283	556	685
Sept.	209	1.7	380	2.3	205	267	467	658
Oct.	334	2.7	571	3.4	637	846	634	351
Nov.	648	5.2	1,276	7.6	2,605	1,235	1,233	901
Dec.	<u>1,412</u>	<u>11.3</u>	<u>1,843</u>	<u>10.9</u>	<u>1,853</u>	<u>2,403</u>	<u>2,096</u>	<u>1,657</u>
Total	12,456	100.0	16,862	100.0	17,891	15,507	17,502	20,680

Source: Statistics Canada.

Cauliflower: Percentage Distribution of Imports from United States, by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Florida</u>	<u>Arizona</u>	<u>Others</u>	<u>Total</u>
- per cent -					
<u>1972</u>					
Atlantic Region	99.6	0.4	-	-	100.0
Central Region	88.1	1.5	9.9	0.5	100.0
Western Region	99.6	-	-	0.4	100.0
Canada	93.6	0.8	5.1	0.5	100.0
<u>1973</u>					
Atlantic Region	91.8	1.6	3.8	2.7	100.0
Central Region	89.7	4.0	5.4	0.9	100.0
Western Region	97.4	-	-	2.6	100.0
Canada	92.8	2.4	3.2	1.6	100.0
<u>1974</u>					
Atlantic Region	85.9	1.6	1.2	11.2	100.0
Central Region	94.5	0.8	3.4	1.3	100.0
Western Region	99.6	-	0.1	0.3	100.0
Canada	96.4	0.5	2.0	1.0	100.0

Source: Agriculture Canada.

Cauliflower: Exports by Country of Destination, 1966-1974

<u>Year</u>	<u>United States</u>	<u>Others</u>	<u>Total</u>
		- thousand pounds -	
1966	17	-	17
1967	68	-	68
1968	116	-	116
1969	3	*	3
1970	121	-	121
Average 1966-70	65	*	65
1971	118	*	118
1972	126	-	126
1973	137	-	137
1974	67	-	67
Average 1971-74	112	*	112

Source: Agriculture Canada.

Cauliflower: Weekly Wholesale to Retail Prices at Halifax, Montreal and Toronto, 1974

Week Ending	Halifax			Montreal			Toronto		
	(a)		N.S. (b)			Que. Ctn. 12			Ont. (c)
	Cal.	Ctn. 16		Cal.	Ctn. 12		Cal.	Ctn. 12	
		Ctn. 16	Ctn. 12						
				- 23 lb. -					
				-	cents per pound	-			
Jan. 4	43.5	33.7					34.3	34.3	
11	47.8	33.2					34.3	32.1	
18	47.8	34.3					33.2	33.2	
25	42.6	32.6					33.2		
Feb. 1	45.2	33.2					32.6		
8	45.2	32.1					29.3		
15	43.5	34.3					31.5	34.8	
22	48.9	33.7					38.6	38.6	
Mar. 1	43.5	38.0					37.0	38.6	
8	39.1	36.4					34.3		
15	40.2	35.3					31.0	31.5	
22	42.4	32.1					28.3		
29	42.4	28.8					27.2	27.7	
Apr. 5	37.0	28.3	29.9				31.5	33.7	
12	36.5	31.0	33.7				35.9	41.9	
19	36.5	33.7	37.0				34.8	35.3	
26	45.7	29.9	33.7				35.9		
May 3	45.7	29.9	33.7				35.9		
10	43.5	28.8	33.2				31.5		
17	45.2	28.3	31.5				28.8	32.6	
24	45.2	27.2	29.9				27.7	31.5	
31	38.0	26.7					26.7	31.0	
June 7	38.0	26.7					28.8	32.1	
14	35.9	25.6					28.8	32.1	
21	34.8	25.6					28.8	31.5	18.5
28	37.0					18.0	28.8	32.1	21.2

**Cauliflower: Weekly Wholesale to Retail Prices at
Winnipeg and Vancouver, 1974**

<u>Week Ending</u>	<u>Winnipeg</u>		<u>Vancouver</u>	
	<u>Cal.</u>	<u>Man.</u>	<u>Cal.</u>	<u>B.C.</u>
	Ctn. 16	Ctn. 12	Ctn. 16	Ctn. 12
	- 23 lb. -			
	- cents per pound -			
Jan. 4	34.3		34.8	
11	31.0		32.2	
18	33.7		35.3	
25	32.8		37.5	
Feb. 1	32.1		34.1	
8	31.2		32.9	
15	33.0		33.6	
22	39.6		33.2	
Mar. 1	41.3		37.5	
8	38.6		37.4	
15	34.3		34.5	
22	29.9		30.2	
29	28.7		32.1	
Apr. 5	30.4		31.5	
12	30.4		33.7	
19	31.0		33.7	
26	30.1		33.7	
May 3	32.4		34.8	
10	31.5		33.7	
17	27.2		29.9	
24	28.3		30.4	
31	27.7		28.8	
June 7	28.2		27.7	
14	26.9		29.3	
21	26.7		29.3	21.0
28	26.3		29.1	22.6
July 5	27.7			22.6
12	33.2			22.8
19	33.9		37.4	
26	34.8	24.5	37.4	
Aug. 2	33.0	30.2	37.3	
9	33.2	26.1	35.1	
16	32.6	26.7	35.1	
23	32.6	26.7		
30	35.3	26.7		
Sept. 6	33.7	26.7		
13	32.1	25.2		
20	33.2	25.2		
27	33.2	24.7		
Oct. 4	33.2	25.0		
11	31.0	25.2		
18	31.0	25.2		
25	31.5	25.7		
Nov. 1	33.4	23.9		
8	30.9	23.4		
15	32.0	21.2	29.7	
22	33.7	21.0	35.6	
29	33.8	21.0	33.9	
Dec. 6	32.8	21.0	34.0	
13	31.5		34.0	
20	31.0		32.1	
27	31.0		32.1	

Source: Agriculture Canada.

Appendix Table 11b (concl.)

Imported United States Cauliflower: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs;
Cost of Duty; Winnipeg and Vancouver; Selected Data by Month, 1974

<u>Month of Shipment</u>	<u>Winnipeg</u>					<u>Vancouver</u>				
	<u>Source</u>	<u>Cost f.o.b.</u>	<u>Cost of Freight</u>	<u>Duty Paid</u>	<u>Total Landed Cost</u> cents per pound	<u>Source</u>	<u>Cost f.o.b.</u>	<u>Cost of Freight</u>	<u>Duty Paid</u>	<u>Total Landed Cost</u>
August	Calif. -	15.7 -	6.4 -	1.6 -	23.7 -	Calif. "	19.6 22.2	3.4 3.8	2.0 2.2	25.0 28.2
September	Calif.	15.0	5.5	1.5	22.0	-	-	-	-	-
October	Calif. "	17.2 19.3	6.0 5.5	1.7 2.0	24.9 26.8	- -	- -	- -	- -	- -
November	Calif.	18.9	5.9	1.9	26.7	-	-	-	-	-
December	Calif. " -	17.6 19.3 -	6.2 6.0 -	1.8 2.0 -	25.6 27.3 -	Calif. " "	19.1 21.1 22.2	3.9 3.6 3.7	1.9 2.1 2.2	24.9 26.8 28.1

Source: Tariff Board Survey.

Cauliflower: Total Acreage, Production, Yield per Acre, Farm
Value and Farm Value per Pound, United States,
by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
Arizona		790	1,150	950	800	923
California		18,800	21,600	24,600	25,800	22,700
New York		2,500	2,400	2,700	2,600	2,550
Oregon		1,600	1,800	1,800	1,600	1,700
Other States		<u>1,270</u>	<u>1,130</u>	<u>1,730</u>	<u>1,370</u>	<u>1,375</u>
Total	26,010	24,960	28,080	31,780	32,170	29,248
- Production, '000 lb. -						
Arizona		5,200	6,100	5,600	4,900	5,450
California		188,000	237,400	223,500	246,600	223,875
New York		25,800	26,400	29,000	26,300	26,875
Oregon		18,400	22,500	26,300	17,400	21,150
Other States		<u>8,200</u>	<u>6,500</u>	<u>9,600</u>	<u>8,100</u>	<u>8,100</u>
Total	250,320	245,600	298,900	294,000	303,300	285,450
- Average Yield, lb. -						
Arizona		6,582	5,304	5,895	6,125	5,905
California		10,000	10,991	9,085	9,558	9,862
New York		10,320	11,000	10,741	10,115	10,539
Oregon		11,500	12,500	14,611	10,875	12,441
Other States		6,457	5,752	5,549	5,912	5,891
Total	9,624	9,840	10,645	9,251	9,428	9,760
- Farm Value, \$'000 -						
Arizona		926	1,125	1,217	1,087	1,089
California		18,470	24,265	25,527	31,455	24,929
New York		3,286	3,686	3,492	3,652	3,529
Oregon		1,243	1,572	2,038	2,036	1,722
Other States		<u>1,182</u>	<u>889</u>	<u>1,628</u>	<u>1,364</u>	<u>1,266</u>
Total	22,621	25,107	31,537	33,902	39,594	32,535
- Farm Value, ¢ per lb. -						
Arizona		17.8	18.4	21.7	22.2	20.0
California		9.8	10.2	11.4	12.8	11.1
New York		12.7	14.0	12.0	13.9	13.1
Oregon		6.8	7.0	7.7	11.7	8.1
Other States		14.4	13.7	17.0	16.8	15.6
Total	9.0	10.2	10.6	11.5	13.1	11.4

Source: U.S. Department of Agriculture.

Cauliflower: Fresh Market Production, Farm Value and Farm
Value per Pound, United States, by States,
1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Production, '000 lb. -					
Arizona	5,200	6,100	5,600	4,900	5,450
California	87,100	120,000	97,400	115,300	104,950
New York	23,100	24,800	26,500	24,300	24,675
Oregon	5,500	5,800	6,800	5,000	5,775
Other States	<u>6,500</u>	<u>4,400</u>	<u>7,900</u>	<u>5,800</u>	<u>6,150</u>
Total	127,400	161,100	144,200	155,300	147,000
- Farm Value, \$'000 -					
Arizona	926	1,125	1,217	1,087	1,089
California	12,706	17,306	16,566	20,820	16,850
New York	3,075	3,563	3,355	3,514	3,377
Oregon	611	754	965	1,007	834
Other States	<u>1,102</u>	<u>781</u>	<u>1,522</u>	<u>1,225</u>	<u>1,158</u>
Total	18,420	23,529	23,625	27,653	23,307
- Farm Value, ¢ per lb. -					
Arizona	17.8	18.4	21.7	22.2	20.0
California	14.6	14.4	17.0	18.1	16.1
New York	13.3	14.4	12.7	14.5	13.7
Oregon	11.1	13.0	14.2	20.1	14.4
Other States	17.0	17.8	19.3	21.1	18.8
Total	14.5	14.6	16.4	17.8	15.9

Source: U.S. Department of Agriculture.

**Cauliflower: Processing Market Production, Farm Value and
Farm Value per Pound, United States, by States,
1971-1974**

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Production, '000 lb. -					
California	100,900	117,400	126,100	131,300	118,925
New York	2,700	1,600	2,500	2,000	2,200
Other States	<u>14,600</u>	<u>18,800</u>	<u>21,200</u>	<u>14,700</u>	<u>17,325</u>
Total	118,200	137,800	149,800	148,000	138,450
- Farm Value, \$'000 -					
California	5,764	6,959	8,961	10,635	8,080
New York	211	123	137	138	152
Other States	<u>712</u>	<u>926</u>	<u>1,179</u>	<u>1,168</u>	<u>996</u>
Total	6,687	8,008	10,277	11,941	9,228
- Farm Value, ¢ per lb. -					
California	5.7	5.9	7.1	8.1	6.8
New York	7.8	7.7	5.5	6.9	6.9
Other States	4.9	4.9	5.6	7.9	5.7
Total	5.7	5.8	6.9	8.1	6.7

Source: U.S. Department of Agriculture.

Cauliflower: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year (a)	Maritime Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	Aug. 12	Nov. 25	105	June 9	Oct. 27	140	-	-	-
1967	July 26	Nov. 20	117	June 14	Nov. 1	140	July 18	Dec. 5	140
1968	-	-	-	June 6	Oct. 24	140	-	-	-
1969	-	-	-	June 18	Oct. 29	133	Aug. 1	Nov. 26	117
1970	July 31	Dec. 18	140	June 18	Nov. 4	139	-	-	-
1971	Aug. 20	Jan. 6	139	June 18	Nov. 4	139	-	-	-
1972	Aug. 23	Jan. 10	140	June 13	Oct. 31	140	-	-	-
1973	Sept. 5	Jan. 23	140	June 15	Nov. 2	140	Sept. 25	Feb. 12	140
1974	Aug. 16	Dec. 31	137	June 12	Oct. 29	139	-	-	-
1975	Aug. 29	Dec. 31	124	-	-	-	-	-	-

(a) Government fiscal year commencing April 1st; ending March 31st following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Cauliflower: Dutiable Imports and the Ad Valorem Equivalent of the M.F.N. Specific Duty, 1966-1975

Year	Imports				Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.			
1966	10,776	6,383	59.2	4,392	13.2	0.75	5.7
1967	12,812	7,173	56.0	5,638	13.0	0.75	5.8
1968	12,238	8,204	67.0	4,034	12.9	0.75	5.8
1969	12,703	8,314	65.5	4,388	14.0	0.75	5.4
1970	13,750	9,158	66.6	4,593	12.7	0.75	5.9
Average 1966-70	12,456	7,847	63.0	4,609	13.1	0.75	5.7
1971	12,731	8,358	65.7	4,373	14.2	0.75	5.3
1972	17,891	10,169	56.8	7,722	11.0	0.75	6.8
1973	15,507	12,579	81.1	2,928	14.6	0.75	5.1
1974	17,502	12,457	71.2	5,045	17.4	0.75	4.3
1975	20,680	13,517	65.4	7,163	18.5	0.75	4.1
Average 1971-75	16,862	11,416	67.7	5,446	15.1	0.75	5.0

Source: Statistics Canada.

CELERY

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CELERY

Celery belongs to the family Umbelliferae, frequently referred to as the parsley family. The botanical name of celery is Apium graveolens, var. dulce. Celery originated in the Mediterranean area, where "wild" celery has been known for thousands of years. As late as the sixteenth century it was identified as a medicinal plant only. However, in the early eighteenth century celery stalks were commonly used in soups and broths in England. It is not known when celery was first brought to North America, but the first references to the cultivation of celery in North America were mentioned in the American Gardener's Calendar in 1806.

Celery's principal uses today are as a pre-dinner appetizer, often stuffed with cream cheese; in salads; as a spice with meat and fish; and as a flavouring and a vegetable in soups and stews. Celery is also used in sandwich spreads, sauces, stuffings and as a cooked vegetable. Increasing amounts of celery are being used in processing, for example, as a constituent of vegetable juices and vegetable soups.

All Canadian-grown celery is green in colour. White celery which used to be produced by covering the stalks with earth as they grew was found to be too labour-intensive and production in Canada of white celery has practically ceased in recent years.

Celery is a relatively minor crop in Canada. Its annual average farm value in the period 1971-74 was \$2.1 million. Annual per capita consumption has fluctuated between 7.7 and 8.2 pounds during recent years.

GROWING, HARVESTING AND MARKETING

Celery growing is rather narrowly confined to those regions in which the monthly mean temperatures during the growing season are between 16°C and 21°C. Interestingly, this means that production in the United States, concentrated in California and Florida, is lowest during the heat of the summer, during which period the peak of the Canadian production or shipping season occurs. On the other hand, long exposure to cool temperatures, 5°C-10°C, causes most varieties of celery to "bolt," or produce seedstalks. In addition, the plant requires a long growing season for the stalks to reach marketable size. For these reasons, production in Canada is heavily concentrated in the southernmost or warmest areas of Ontario, Quebec, and British Columbia.

A well-drained muck or peat soil is considered almost ideal for growing celery. But any good sandy loam with a lot of organic matter, or silt loam will produce a good celery crop under favourable climatic conditions.

The celery plant is shallow-rooted, has a heavy demand for water and nutrients, and does not tolerate either drought or poor surface drainage. Soil preparation is also a very important factor in celery growing. The soil should be deeply ploughed, followed by a thorough breaking up of clumps to produce a fine seed-bed.

Characteristics such as these make celery cultivation demanding in terms of labour, cultivation, fertilizer and irrigation. Celery requires more labour for planting, cultivating and harvesting than most other vegetables (usually between 300 and 450 man-hours per acre, depending on yield and the degree of mechanization). Mechanical harvesting, which reduces labour requirements considerably, is spreading.

For early celery in Canada, the seed is sown in flats or soil-beds in a greenhouse, and then the young plants are set in plastic-covered beds for 10 to 12 weeks, after which they are ready for transplanting.

Celery is harvested as soon as the stalks reach marketable size. By starting celery plants in greenhouses, and transplanting them to open fields as soon as it is warm enough for their growth, the first celery harvesting in Canada can take place in July; occasionally, small amounts are harvested at the end of June. However, since the growing period must not be too cool, by far the largest proportion of shipments in Canada occur during the months of August, September, and October.

Harvesting methods vary from manual to almost completely mechanized. When harvesting by hand, the plants are cut off below the surface of the ground with a sharp knife or a special cutting implement. Complete mechanical harvesters are used by some large specialized growers in the United States and in Canada.

A substantial percentage of celery grown for the fresh market, is "hydro-cooled" to $0^{\circ}\text{--}1^{\circ}\text{C}$ immediately after harvesting, and then stored in climate-controlled cold storage facilities. Hydro-cooling enables celery to remain fresh and unspoiled in cold storage for up to 10 weeks after harvesting, thus permitting an extension of both the fresh selling season and the processing period.

Celery for fresh market consumption is sold by growers to packers for pre-packing and to wholesalers and retailers. When sold to retailers it is packed in crates which usually contain from 2 to 4 dozen stalks (or bunches), depending on stalk size, with a net weight of 60 pounds of celery. There is, however, some variation in crate sizes; some Ontario crates contain 65 pounds of celery.

ACREAGE, PRODUCTION AND FARM VALUE

According to the 1971 Census, celery was being grown on 1,170 acres in Canada, see Appendix Table 1. The total was divided among 403 farms; an average of 2.9 acres per farm. Quebec's celery farms, with an average size of 6.0 acres, were far larger than those in any of the other provinces.

Table 1 shows that total reported planted acreage declined from an average of 1,178 acres in 1961-65 to 1,110 acres in 1971-74. Over the same period, on a regional basis, Ontario's share declined slightly from 47 per cent to 43 per cent, while Quebec's share rose from 34 per cent to 39 per cent, and the shares of Manitoba and British Columbia remained at about 6 and 12 per cent respectively.

Table 1: Celery: Acreage, Production, Yield per Acre,
Farm Value, Average Farm Value per Pound,
by Province, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Quebec	402	430	470	420	430	430	438	+ 9.0
Ontario	558	460	400	450	570	470	473	- 15.2
Manitoba	74	84	60	60	60	60	60	- 18.9
B.C.	144	154	150	130	130	150	140	- 2.8
Canada	1,178	1,128	1,080	1,060	1,190	1,110	1,110	- 5.8
- Production, '000 lb. -								
Quebec	9,454	10,750	14,523	7,014	10,664	11,954	11,039	+ 16.8
Ontario	28,234	23,550	24,914	29,313	34,492	28,409	29,282	+ 3.7
Manitoba	2,060	2,327	2,750	2,640	1,230	1,800	2,105	+ 2.2
B.C.	3,917	4,948	4,454	3,570	5,153	4,881	4,515	+ 15.3
Canada	43,665	41,574	46,641	42,537	51,539	47,044	46,940	+ 7.5
- Average Yield, lb. -								
Quebec	23,517	25,000	30,900	16,700	24,800	27,800	25,203	+ 7.2
Ontario	50,599	51,196	63,285	65,140	60,512	60,445	61,907	+ 22.3
Manitoba	27,838	27,702	45,833	44,000	20,500	30,000	35,083	+ 26.0
B.C.	27,201	32,130	29,693	27,462	39,638	32,540	32,250	+ 18.6
Canada	37,067	36,856	43,186	40,129	43,	42,382	42,288	+ 14.1
- Farm Value, \$'000 -								
Quebec	254	367	418	231	416	514	395	+ 55.5
Ontario	658	660	753	1,045	1,715	1,465	1,245	+ 89.2
Manitoba	80	144	165	264	123	108	165	+106.3
B.C.	175	269	255	287	399	401	336	+ 92.0
Canada	1,167	1,440	1,591	1,827	2,653	2,488	2,140	+ 83.4
- Farm Value, ¢ per lb. -								
Quebec	2.7	3.4	2.9	3.3	3.9	4.3	3.6	+ 33.3
Ontario	2.3	2.8	3.0	3.6	5.0	5.2	4.3	+ 87.0
Manitoba	3.9	6.2	6.0	10.0	10.0	6.0	7.8	+100.0
B.C.	4.5	5.4	5.7	8.0	7.7	8.2	7.4	+ 64.4
Canada	2.7	3.5	3.4	4.3	5.2	5.3	4.6	+ 70.4

Source: Statistics Canada.

Annual average celery production in Canada increased 7.5 per cent between 1961-65 and 1971-74 from 43.7 million pounds to 46.9 million pounds. The largest proportionate gains, (16.8 per cent and 15.3 per cent respectively) occurred in Quebec and British Columbia. However, Ontario remained the largest producer by a wide margin, accounting for an annual average of 29.3 million pounds or 62.4 per cent of total Canadian production in the 1971-74 period.

Average yield per acre for all celery growers in Canada increased by 14.1 per cent during the period under review, reaching 42.3 thousand pounds in 1971-74 compared with 37.1 thousand pounds in 1961-65. All provinces recorded higher yields although the increase in Quebec was somewhat below that in the other regions. Ontario's average annual yield of 61.9 thousand pounds per acre in 1971-74 was substantially higher than that in any other province. In view of the declining acreage planted to celery in Canada it is evident that improved yields were responsible for the growth in production during the period under review.

The annual farm value of celery in Canada rose from an average of \$1.2 million in 1961-65 to \$2.1 million in 1971-74, or just over 83 per cent. The increase in value was almost entirely attributable to an increase in the average farm-gate price which rose from 2.7 cents per pound in 1961-65 to 4.6 cents in 1971-74. On a regional basis, average farm values per pound rose most in Manitoba and least in Quebec; they ranged from 3.6 cents in Quebec to 7.8 cents in Manitoba.

SUPPLY AND DISPOSITION

Complete data for the Canadian supply and disposition of celery were unavailable. Information on fresh celery imports for processing or imported processed celery is confidential and is excluded from the data.

The total annual supply of celery averaged 180.3 million pounds in 1971-74, an increase of 22.9 per cent above the annual average of 146.8 million pounds in 1961-65, (see Table 2). Domestic production rose from an annual average of 43.7 million pounds in 1961-65 to 46.9 million pounds in 1971-74 an increase of 7.5 per cent. During the same period imports rose by 29.4 per cent from an annual average of 103.1 million pounds to 133.4 million pounds. Consequently imports accounted for 74.0 per cent of total supply in 1971-74 compared with 70.2 per cent in 1961-65.

Celery available for processing rose from an annual average of 6.1 million pounds in 1961-65 to 8.2 million pounds in 1971-74, an increase of 33.1 per cent. This relates to domestic sources only. As indicated above data on imports are confidential, though such imports are believed to be small. Celery available for processing accounted for about 4 per cent of the total supply available during the period under review.

Celery supplies for the fresh market rose from an annual average of 140.6 million pounds in 1961-65 to 172.1 million pounds in 1971-74, an increase of 22.4 per cent. Domestic production of celery

Table 2: Celery: Supply and Disposition, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb.	-			
<u>Total Production</u>	43,665	41,574	46,641	42,537	51,539	47,044	46,940	+ 7.5
<u>Total Imports (Fresh)</u>	103,086	118,225	134,771	125,345	134,109	139,220	133,362	+ 29.4
<u>Total Supply Available</u>	146,751	159,799	181,412	167,882	185,648	186,264	180,302	+ 22.9
Available for processing or imported processed(a)	6,133	6,317	9,181	7,764	7,399	8,307	8,163	+ 33.1
From domestic production	6,133	6,317	9,181	7,764	7,399	8,307	8,163	+ 33.1
Available for fresh market	140,618	153,482	172,231	160,118	178,249	177,957	172,139	+ 22.4
From domestic production	37,532	35,257	37,460	34,773	44,140	38,737	38,777	+ 3.3
Imported	103,086	118,225	134,771	125,345	134,109	139,220	133,362	+ 29.4
<u>Total Exports</u>	257	537	704	2,034	1,063	588	1,097	+326.8
<u>Total Domestic Disappearance</u>	146,494	159,262	180,708	165,848	184,585	185,676	179,205	+ 22.3
Consumed in processed form	6,133	6,317	9,181	7,764	7,399	8,307	8,163	+ 33.1
From domestic production	6,133	6,317	9,181	7,764	7,399	8,307	8,163	+ 3.1
Fresh market consumption	140,361	152,945	171,527	158,084	177,186	177,369	171,042	+ 21.9
From domestic production	37,275	34,720	36,756	32,739	43,077	38,149	37,680	+ 1.1
Imported	103,086	118,225	134,771	125,345	134,109	139,220	133,362	+ 29.4

(a) Imported data for processing not available.

Source: Derived from Statistics Canada and Agriculture Canada data.

for fresh use rose from an annual average of 37.5 million pounds in 1961-65 to 38.8 million pounds in 1971-74, an increase of 3.3 per cent. Imports of celery available for the fresh market rose from an annual average of 103.1 million pounds in 1961-65 to 133.4 million in 1971-74, an increase of 29.4 per cent. Imports as a proportion of total supply available for the fresh market rose from 73.3 per cent in 1961-65 to 77.5 per cent in 1971-74 (see Appendix Table 2). During the period under review about 96 per cent of all celery available was for the fresh market.

Only a relatively small quantity of celery is exported. Total exports in 1961-65 averaged 0.3 million pounds annually and this rose to an average of 1.1 million pounds in 1971-74.

Domestic consumption accounted for an annual average of 146.5 million pounds in 1961-65 compared with 179.2 million in 1971-74, and represented 99.8 per cent and 99.4 per cent respectively of total disposition. About 95 per cent of celery consumed in Canada in 1971-74 was apparently eaten in fresh form and about three-quarters of that was imported.

The major reason why imports of celery account for such a large proportion of domestic consumption stems from the fact that celery is consumed in Canada at a relatively uniform rate throughout the year (see Appendix Table 4). In contrast, the production season in Canada is short, lasting only about three months, and is normally extended little by storage.

Table 3: Celery: Production, Imports and Consumption,
Selected Averages, 1966-1974

	<u>1966-70</u>	<u>1971-74</u>
	- '000 lb. -	
Production		
Aug.-Oct.	27,915	33,080
Nov.-July	6,806	4,601
Total	34,720	37,680
Imports		
Aug.-Oct.	6,719	8,634
Nov.-July	111,506	124,728
Total	118,225	133,362
Consumption		
Aug.-Oct.	34,634	41,714
Nov.-July	118,312	129,329
Total	152,946	171,042
Imports as % of Consumption		
Aug.-Oct.	19.4	20.7
Nov.-July	94.2	96.4
Total	77.3	78.0

Source: Derived from Statistics Canada and Agriculture Canada data.

Table 3 shows that during the main growing season from August to October, Canadian producers supplied about 80 per cent of celery for fresh market consumption in 1966-70 and 1971-74. However, during the off-season, from November to July, practically all domestic fresh market consumption of celery, 94.2 per cent in 1966-70 and 96.4 per cent in 1971-74, was met by imports.

In recent years imports as a percentage of fresh market consumption have increased in July and November, the months immediately preceding and following the peak domestic production season. In 1966-70 imports as a percentage of consumption in July averaged 67.8 per cent and by 1971-74 this had increased to 77.0 per cent. Similarly, in 1966-70 imports for the month of November accounted for 77.7 per cent of consumption in that month and by 1971-74 the share had risen to 85.3 per cent. Thus sales have been lost by domestic producers during the relatively higher-priced periods. The reason for increased import penetration in these "shoulder" months may be related to the higher risk of growing early and late celery. Shipments of celery during the three peak months, August to October, increased from 80.4 per cent of average annual shipments in 1966-70 to 87.8 per cent in 1971-74.

IMPORTS

Data on imports are assumed to be for the fresh market only; information on imports of fresh celery for processing are confidential. Traditionally, all imports of celery have originated in the United States, (see Appendix Table 5). About 95 per cent of all imports arrive in Canada from November to July, i.e., outside the main Canadian production season.

California and Florida have been the main U.S. sources of Canadian celery imports, (see Appendix Table 8). In 1974, the former supplied 69.7 per cent and the latter 28.1 per cent of all Canadian imports of celery.

Imports by province have remained relatively stable in recent years. Quebec and Ontario have traditionally accounted for about 70 per cent of all celery imports into Canada. In 1974, imports into these two provinces were 49.8 million and 48.4 million pounds respectively and in total accounted for 71 per cent of all celery imports (see Appendix Table 3). Imports into the western provinces accounted for about 25 per cent of total imports in 1974, and imports into the Atlantic region for about 4 per cent.

EXPORTS

All exports of celery were for the fresh market, and about 99 per cent went to the United States, (see Appendix Table 9). It has been reported that "hydro-cooling" has assisted producers in central Canada in exporting to the New England market in recent years, in competition with celery from California and Florida.

PRICES

As previously indicated, the average Canadian farm price for celery increased from 2.7 cents per pound in 1961-65 to 4.6 cents in 1971-74, (see Table 1). Average farm prices have been consistently much lower in Quebec and Ontario than in Manitoba and British Columbia.

There are significant variations in the wholesale-to-retail selling prices for domestic and imported celery, by month and by city, (see Table 4). In 1974, the highest prices occurred during June and July. However prices in August, September, and October, the main production season in Canada, were among the lowest. By city, Halifax prices were highest, followed by those in Vancouver and Winnipeg, with those in Montreal and Toronto being lowest. As with many other vegetables, prices for imported celery were generally higher than those for domestic produce. It would appear that imported celery commanded a premium price over domestic celery, of about one-third in some instances, because imports consisted to a significant extent of pre-packed celery hearts - that is celery from which the outer stalks were removed.

Table 5 presents some information on the average landed cost of imported celery in Toronto, Montreal, Winnipeg, and Vancouver in 1972-74. More complete data can be found in Appendix Tables 11a and 11b.

Table 4: Average Wholesale-to-Retail Selling Prices for Domestic and Imported Celery in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974

	<u>Halifax</u>		<u>Montreal</u>		<u>Toronto</u>		<u>Winnipeg</u>		<u>Vancouver</u>
	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Imp.</u>
	- ¢ per lb. -								
Jan.	-	12.3	-	9.7	-	9.2	-	11.6	10.9
Feb.	-	12.4	-	10.6	-	9.3	-	11.2	11.4
Mar.	-	12.9	-	10.2	-	8.7	-	10.7	11.3
Apr.	-	12.2	-	9.2	-	8.7	-	10.2	10.6
May	-	15.5	-	13.1	-	13.0	-	13.3	14.5
June	-	16.2	14.8	14.0	14.0	14.4	-	14.1	15.6
July	-	19.4	11.3	16.1	12.0	15.8	-	16.4	16.6
Aug.	16.7	16.5	9.6	14.2	8.8	-	13.4	14.1	-
Sept.	-	15.0	6.5	-	7.0	-	12.2	14.9	-
Oct.	-	14.4	7.2	14.4	8.2	13.6	12.6	14.6	-
Nov.	-	17.3	-	13.8	9.8	12.9	-	16.0	15.0
Dec.	-	13.0	-	10.4	-	10.9	-	11.7	11.7

Source: Appendix Tables 10a and 10b.

Freight, brokerage and other associated costs vary from one market area to another, but nevertheless were generally higher than seasonal specific duty costs. In 1974, for example, seasonal specific duty costs added an average of 2.0 cents per pound to the f.o.b. cost of celery imported into Canada. During the same year freight, brokerage and other associated costs added from 2.0 cents to 5.2 cents to the f.o.b. cost of a pound of celery, depending upon city.

As with many other vegetables the f.o.b. cost of imported celery fluctuates over a wide range during the course of a year and accounts for most of the changes in total landed cost. However, when f.o.b. costs are falling, duty, freight and brokerage charges provide an increasing degree of protection to domestic producers. In 1974, during the main production season, this total protection added from 40 per cent to 165 per cent, depending on the destination in Canada, to the f.o.b. cost of imported celery (see Appendix Tables 11a and 11b).

Table 5: Average Landed Cost of Imported Celery in Toronto, Montreal, Winnipeg, and Vancouver, 1972-1974

		<u>Cost f.o.b.</u>	<u>Freight, Brokerage, etc.</u>	<u>Duty</u>	<u>Total Landed Cost</u>
		- range in ¢ per lb. -			
Toronto	1972	4.1-11.0	1.9-3.5	Free-2.0	6.1-13.5
	1973	3.2-10.4	1.9-3.6	Free-2.0	6.6-15.2
	1974	5.0-10.1	2.0-4.8	Free-2.0	7.0-16.0
Montreal	1974	3.6-8.3	3.6-4.6	Free-2.0	7.5-13.7
Winnipeg	1974	4.3-8.2	2.0-5.2	Free-2.0	8.1-14.1
Vancouver	1974	4.4-11.9	2.6-4.2	Free-2.0	7.2-15.2

Source: Appendix Tables 11a and 11b.

CANADA-UNITED STATES COMPARISONS

Celery production in the United States in 1971-74 averaged 1,629.8 million pounds compared with 1,516.2 million pounds in 1966-70 (see Appendix Table 12). About 63 per cent of total celery production in 1971-74 was in California and 27 per cent in Florida. In Canada, celery production in 1971-74 was 46.9 million pounds.

Average yield per acre in the United States in 1971-74 was 49,040 pounds, or about 16 per cent higher than Canada's average of 42,288 pounds. However, in 1971-74 the average yield in Ontario of 61,907 pounds was about 9 per cent higher than in California, where yields were highest in the United States.

In 1971-74, the average farm value of celery grown in the United States was 5.9 cents per pound, see Appendix Table 12, compared with 4.6 cents in Canada (see Table 1). This represented a substantial narrowing of the price differential since 1966-70 when the United States average price per pound was 5.1 cents and the Canadian price 2.7 cents.

Table 6: Celery: Production Costs in Ontario and United States Growing Areas

	<u>Ontario</u>		<u>California</u>	<u>Florida</u>
	Bradford Marsh			
	1974		1973	1972-73
Yield, lb. ^(a)	60,000		60,000	38,880
	- \$ per acre -			
<u>Pre-Harvest or Cultivation Cost</u>				
Labour	487.75		173.55	249.43
Machines	126.75		600.18	178.24
Materials	238.07		179.70	337.93
Total	852.67		953.43	765.60
<u>Harvesting and Marketing Cost</u>				
	<u>By Hand</u>	<u>By Harvester</u>		
Labour	843.00	375.00	..	..
Machines	18.90	113.16	..	..
Materials	600.00	600.00		
Total	1,461.90	1,088.16	2,177.50	1,363.56
<u>Overhead Costs</u>				
Land charges	395.00	395.00	120.00	45.00
Other	86.71	86.71	139.50	19.60
Total	481.71	481.71	259.50	64.60
Total Costs	2,796.28	2,422.54	3,390.43	2,193.76
Total Costs (¢/lb.)	4.7	4.0	5.6	5.6

(a) 1,000 crates @ 60 lb. per crate.

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

The Board examined cost data relating to the operation of selected celery producers in Ontario, California and Florida (see Table 6). The table indicates that Ontario growers probably enjoy a significant advantage in terms of production costs per pound over growers in California and Florida.

However, Ontario growers obtained yields which were 75 per cent - 150 per cent above those obtained by growers in other provinces (see Table 1). Thus production costs per pound in British Columbia, Manitoba, and Quebec would probably be higher, because of lower yields, than in Ontario.

Some cost components, for example land and labour, in other provinces could differ from those shown in Table 6 for Ontario. But many of the other costs, materials and machines would remain the same. When lower yields are taken into consideration production costs in British Columbia and Manitoba could be 6.0 cents per pound or more. This would leave them in an unfavourable cost position vis-à-vis California and Florida.

Average farm values also substantiate that costs of production of celery are higher in British Columbia and Manitoba than in Ontario. Growers will not, for long, produce at an average return which does not cover cost. Average farm values in 1974 in British Columbia and Manitoba were 8.2 and 6.0 cents per pound respectively, well above the Ontario figure of 5.2 cents.

Production costs of celery in Ontario of 4.7 cents per pound, compared with an average farm value of 5.2 cents per pound suggests that, at a yield of 60,000 pounds per acre, - close to the average for all Ontario celery growers, - the average grower realized a net return of 0.5 cent per pound or \$300 per acre. This probably constitutes the return to labour and management by the grower; the return on the growers investment in land has already been included in the cost calculation.

The low average yields of growers in Quebec would tend to indicate that unit costs of producing celery in that province, as in British Columbia and Manitoba, also are well above those in Ontario. The average return to farmers in Quebec is however less than in Ontario; this suggests that the cost structure for the average Quebec grower is substantially different than that indicated in Table 6 for Ontario. The likely explanation is that most of the labour required in growing celery is provided by the grower and his family and the price he receives results in a return on this labour well below that provided for in the Ontario sample. The return on his investment in land is probably also considerably less.

TARIFF CONSIDERATIONS

All celery entering Canada is classified under tariff item 8709-1. The tariff item is as follows.

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Celery per pound	Free	2 cts. or Free	2 cts. or Free

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 24 weeks, and the Free rate shall apply whenever the specific duty is not in effect.

Table 7 shows that the present tariff on celery has been in effect since 1959. Free entry has characterized the British Preferential Tariff rate at least since the 1930s, but the relatively high rates which have applied to both M.F.N. and Gen. schedules have been significantly reduced.

Table 7: Celery: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. (a)
1936-38	Free	15 p.c.	30 p.c. (a)
1939-47	Free	10 p.c.	30 p.c.
1948-1959 (Apr. 9)	Free	1 ct. (24 weeks) (c)	1 ct. (b) (24 weeks)
		10 p.c.	Free
1959 (Apr. 10)	Free	2 cts. (24 weeks) Free	2 cts. (24 weeks) Free

(a) Not less than 2 cts., July 1-February 28.

(b) Revised in 1950 from 30 p.c.

(c) Not applied until 1950.

Source: Canadian Customs Tariff.

The length of time during which the seasonal specific duty has been applied varies by year and by geographical area. Appendix Table 13 shows the dates of application and removal of this duty during the years 1965 to 1975. In the Atlantic Provinces no seasonal duties have been applied during the period under review. In central Canada the duty has been in effect each year usually between 18 to 22 weeks, and in the western region it has been applied from 15 to 24 weeks.

Appendix Table 14 shows that the proportion of imports subject to duty remained relatively the same, 10.4 per cent in 1971-75 and 9.5 per cent in 1966-70. The rather small percentage of imports subject to duty reflects the facts mentioned earlier concerning the seasonal concentration of production, the relatively uniform year-round consumption of celery and the deficit supplying role of imports.

The table also shows that the ad valorem equivalent of the specific duty of 2.0 cents per pound has been declining because of the increasing f.o.b. price of imported celery. In 1966 when the average f.o.b. price was 6.2 cents per pound, the ad valorem equivalent was 32.3 per cent. By 1975, the ad valorem equivalent of the same specific duty had fallen to 18.2 per cent as a result of the rise in the average import price to 11.0 cents per pound.

The Canadian Horticultural Council requested no change in the specific duty of 2 cents per pound on celery, under both Most-Favoured-Nation and General Tariff, no change in the period of application, but the addition of a minimum ad valorem rate of 20 per cent. The Council also requested that celery be added to those vegetables subject to an additional duty when assembled in consumer packages.

In recent years, a significant proportion of the celery imported into Canada has been in consumer packages, often in the form of celery hearts. The Board does not have f.o.b. import prices for celery hearts but assumes that this product is sold at a higher price than regular fresh celery bunches that are imported. Because of its higher price, the specific duty of 2 cents per pound when calculated in ad valorem terms would be less than the 18.2 per cent indicated above, which was based on an average price for all imports of celery. However, if the Council's request for a minimum ad valorem rate of 20 per cent on all imported celery were adopted, the additional packaging duty of 5 per cent would indicate an ad valorem rate of 25 per cent on pre-packaged celery hearts. This could result in a doubling of the existing ad valorem rate on this product.

As indicated above, in terms of average import prices in 1975 the ad valorem equivalent of the 2 cents per pound specific duty was 18.2 per cent. The Council's request therefore represents only a marginal increase in duty from the 1975 level and is below historical levels.

The Canadian Food Processors Association suggested that a separate tariff item should be created for celery imported for processing and that the seasonal duty should be 10 p.c. for 24 weeks. The off-season rate would be Free.

No data are available separately on prices of celery sold for processing. However, in terms of 1975 f.o.b. import prices, which relate to celery for fresh market consumption, the 10 p.c. duty suggested by the Canadian Food Processors Association would be equivalent to a specific duty of about 1.1 cents per pound, compared with the existing rate of 2.0 cents per pound. For many vegetables, prices for processing are significantly below those in the fresh market, thus the impact of the suggested duty on celery for processing could be somewhat less than 1.1 cents per pound.

CONCLUSIONS

In recent years there has been a slight increase in domestic production of celery and at the same time a moderate increase in dependence on imports.

Consumers in Canada are entirely dependent on imports of celery for most of the year, because consumption of this perishable crop is relatively stable throughout the year while production is concentrated in the period from August to October.

Growers of celery in the major producing area in Ontario appear to be at least as efficient as competing U.S. growers although growers in other provinces have higher costs than those in Ontario and in the United States.

The Board, therefore, recommends that the specific seasonal duty remain at 2 cents per pound under both the Most-Favoured-Nation and General Tariff, and that the period of application of the seasonal duty continue to be a maximum of 24 weeks to be applied on a regional basis. The Board, furthermore, recommends that, in order to prevent future erosion of the specific duty, a minimum seasonal duty be introduced at a rate of 15 p.c. under both the Most-Favoured-Nation and General Tariff.

The Board has also concluded that celery imported in individual consumer packs, when the seasonal duty is in effect, should be liable for the additional duty when imported in individual packages of 5 pounds or less, at the rate as specified in the provision following existing tariff item 8731-1, and it so recommends. The rate of this additional duty is discussed elsewhere in this report and is recommended at 5 p.c. and 10 p.c. under the British Preferential and General Tariff respectively.

The Board decided that in view of the small volume of celery being processed and the negligible imports of celery for processing, that it is unnecessary to establish a separate tariff item for celery imported for that purpose. The Board recommends that such imports continue to enter under the same tariff item as fresh market celery.

RECOMMENDATIONS

The Board recommends that the present tariff item 8709-1 be deleted from Schedule "A" of the Customs Tariff and that the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Celery per pound	Free	2 cts. but not less than 15 p.c., or Free	2 cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 24 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

Appendix Table 1

Celery: Acreage and Number of Farms, by Province
and Region, 1961 and 1971

	1961		1971		
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	14	1.2	3	0.3	7
Nfld.	*	*	-	-	-
P.E.I.	2	0.2	-	-	-
N.S.	4	0.3	2	0.2	3
N.B.	8	0.7	1	0.1	4
Central Region	993	85.5	923	78.9	287
Que.	348	30.0	468	40.0	78
Ont.	645	55.5	455	38.9	209
Western Region	154	13.3	244	20.8	109
Man.	68	5.9	67	5.7	30
Sask.	3	0.2	1	0.1	4
Alta.	2	0.2	8	0.7	10
B.C.	81	7.0	168	14.3	65
Canada ^(a)	1,161	100.0	1,170	100.0	403

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Celery: Supply and Disposition Ratios, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74
	- per cent -						
<u>Per Cent of Domestic Production:</u>							
Sold for Processing	14.0	15.2	19.7	18.2	14.4	17.7	17.4
Sold to Fresh Market	85.4	83.5	78.8	77.0	83.6	81.1	80.3
Exported	0.6	1.3	1.5	4.8	2.0	1.2	2.3
<u>Total Imports as Per Cent:</u>							
of Total Supply Available	70.2	74.0	74.3	74.7	72.2	74.7	74.0
of Total Domestic Disappearance	70.4	74.2	74.6	75.6	72.7	75.0	74.4
<u>Fresh Imports as Per Cent:</u>							
of Fresh Market Availability	73.3	77.0	78.3	78.3	75.2	78.2	77.5
of Fresh Market Consumption	73.4	77.3	78.6	79.3	75.7	78.5	78.0
<u>Per Cent of Fresh Market Consumption:</u>							
From Domestic Production	26.6	22.7	21.4	20.7	24.3	21.5	22.0
From Imports	73.4	77.3	78.6	79.3	75.7	78.5	78.0
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	4.2	4.0	5.1	4.7	4.0	4.6	4.6
Consumed in Fresh Form	95.8	96.0	94.9	95.3	96.0	95.4	95.4
<u>Net Imports^(a) as % of Total Domestic</u>							
Disappearance	70.2	73.9	74.2	74.4	72.1	74.7	73.8
Production as % of Total Domestic							
Disappearance	29.8	26.1	25.8	25.6	27.9	25.3	26.2

(a) Total imports minus total exports.

Source: Table 2.

Appendix Table 3

Celery: Estimated Monthly Distribution of Fresh Shipments,^(a)
1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
- thousands of pounds -						
Jan.	35	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
May	-	-	-	-	-	-
June	139	44	-	131	43	-
July	4,340	2,838	3,823	2,717	2,714	2,098
Aug.	8,784	10,504	7,976	9,756	13,871	10,414
Sept.	10,208	12,548	12,754	10,214	12,535	14,687
Oct.	8,923	10,028	9,740	8,152	12,148	10,071
Nov.	2,257	1,719	2,463	1,768	1,766	876
Dec.	35	-	-	-	-	-
Total	34,720	37,680	36,756	32,739	43,077	38,146

(a) Domestic production for domestic market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Celery: Estimated Monthly Distribution of Fresh
Market Consumption, 1966-1974

Month	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
-per cent-		- thousand pounds -			-per cent-
Jan.	99.8	-	16,746	16,746	100.0
Feb.	100.0	-	14,820	14,820	100.0
Mar.	100.0	-	14,831	14,831	100.0
Apr.	100.0	-	15,441	15,441	100.0
May	100.0	-	14,154	14,154	100.0
June	98.8	44	14,246	14,290	99.7
July	67.8	2,838	9,472	12,310	77.0
Aug.	25.5	10,504	3,835	14,339	26.8
Sept.	13.1	12,548	1,731	14,279	12.1
Oct.	19.6	10,028	3,068	13,096	23.4
Nov.	77.8	1,719	9,964	11,683	85.3
Dec.	99.8	-	15,053	15,053	100.0
Total	77.3	37,680	133,362	171,042	78.0

Source: Derived from Statistics Canada and Agriculture Canada.

Appendix Table 5

Celery: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Others</u>	<u>Total</u>
	- thousand pounds -		
1966	104,988	-	104,988
1967	122,400	-	122,400
1968	119,818	-	119,818
1969	123,654	-	123,654
1970	120,264	-	120,264
Average 1966-70	118,225	-	118,225
1971	134,771	-	134,771
1972	125,345	-	125,345
1973	134,108	1	134,109
1974	139,220	-	139,220
1975	147,953	-	147,953
Average 1971-75	136,279	*	136,280

Source: Statistics Canada.

Appendix Table 6

Celery: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -					
Atlantic Region	4,658	5,135	5,415	5,176	5,472	5,942
Newfoundland	81	62	30	135	43	72
P.E.I.	128	128	180	146	133	242
N.S.	1,364	763	1,030	1,015	1,468	1,787
N.B.	3,085	4,182	4,175	3,880	3,829	3,841
Central Region	83,368	97,676	86,356	93,947	98,170	99,109
Que.	40,068	45,209	42,683	44,483	49,813	49,232
Ont.	43,300	52,468	43,673	49,464	48,357	49,877
Western Region	30,199	31,960	33,574	34,986	35,578	42,903
Man.	5,189	5,470	5,428	5,626	6,862	7,025
Sask.	3,350	2,905	3,721	4,534	4,675	4,319
Alta.	9,244	10,938	10,528	11,306	12,260	13,797
B.C.	12,416	12,647	13,897	13,520	11,782	17,762
Canada	118,225	134,771	125,345	134,109	139,220	147,953

Source: Statistics Canada.

Appendix Table 7

Celery: Imports by Month, 1966-1974

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds					-			
Jan.	14,272	12.1	17,439	12.8	14,590	17,658	17,836	20,207
Feb.	13,043	11.0	15,231	11.2	11,825	13,672	16,986	16,874
Mar.	14,207	12.0	15,062	11.1	13,686	15,013	13,226	15,989
Apr.	14,566	12.3	15,294	11.2	14,346	14,417	15,816	14,705
May	11,632	9.8	14,571	10.7	13,153	14,296	14,968	16,235
June	11,799	10.0	14,674	10.8	15,791	14,541	12,531	16,387
July	9,155	7.7	10,134	7.4	7,929	9,682	11,671	12,779
Aug.	3,005	2.5	3,683	2.7	5,369	2,110	4,751	3,078
Sept.	1,534	1.3	1,907	1.4	1,333	1,871	2,139	2,609
Oct.	2,180	1.8	3,009	2.2	3,904	3,188	3,469	2,770
Nov.	7,859	6.6	10,122	7.4	8,584	9,754	11,639	10,752
Dec.	14,972	12.7	15,157	11.1	14,835	17,910	14,188	15,570
Total	118,225	100.0	136,280	100.0	125,345	134,109	139,220	147,953

Source: Statistics Canada.

Appendix Table 8

Celery: Percentage Distribution of Imports for Fresh Market from United States, by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Florida</u>	<u>Others</u>	<u>Total</u>
- per cent -				
<u>1972</u>				
Atlantic Region	59.9	36.8	3.3	100.0
Central Region	49.0	51.0	*	100.0
Western Region	99.8	0.2	-	100.0
Canada	63.7	36.2	0.1	100.0
<u>1973</u>				
Atlantic Region	35.6	54.4	10.0	100.0
Central Region	55.1	44.6	0.3	100.0
Western Region	99.5	0.5	-	100.0
Canada	66.5	33.0	0.5	100.0
<u>1974</u>				
Atlantic Region	40.9	50.4	8.7	100.0
Central Region	59.1	38.0	2.9	100.0
Western Region	99.6	0.4	-	100.0
Canada	69.7	28.1	2.2	100.0

Source: Agriculture Canada.

Celery: Exports by Country of Destination, 1966-1975^(a)

	<u>United States</u>	<u>Others</u>	<u>Total</u>
	- thousand pounds -		
1966	60	6	66
1967	191	1	192
1968	56	-	56
1969	300	40	340
1970	2,028	2	2,030
Average 1966-70	527	10	537
1971	697	7	704
1972	2,023	11	2,034
1973	1,063	-	1,063
1974	585	3	588
1975	1,112	-	1,112
Average 1971-75	1,096	4	1,100

(a) Period July 1 to December 31.

Source: Agriculture Canada.

Celery: Weekly Wholesale to Retail (a) Prices at Halifax and Montreal, 1974

Week Ending	Halifax				Montreal			
	Florida		California		Florida	California	Ontario	Quebec
	crt. 3 doz.	crt. 2 doz.	crt. 2 doz.	crt. 3 doz.	crt. 2-2½ doz.	ctn. 2-2½ doz.	crt. 2-2½ doz.	crt. 2 doz.
- cents per pound -								
Jan.								
	4	12.5	12.5	12.5	8.3	10.0		
	11	12.5	12.5	12.5	9.6	10.6		
	18	12.1	12.5	12.5	9.6	10.6		
	25	11.7	12.1	12.1	9.4	9.8		
Feb.	1	11.7	12.1	12.1	8.8	9.4		
	8	11.7	12.1	12.1	9.6	10.6		
	15	12.7	12.8	12.8	10.4	12.9		
	22	12.7	12.8	12.8	10.6	12.3		
Mar.	1	13.3	13.8	13.8	10.2	11.3		
	8	12.9	12.9	12.9	10.0	10.8		
	15	12.7	12.7	12.7	9.6	10.4		
	22	12.7	12.7	12.7	9.6	10.4		
	29	12.7	12.7	12.7	9.6	10.4		
Apr.	5	12.2	12.2	12.2	9.0	9.8		
	12	12.2	12.2	12.2		9.4		
	19	12.2	12.2	12.2		8.8		
	26	12.2	12.2	12.2		8.8		
May	3	12.7	12.7	12.7		10.6		
	10	14.3	15.3	15.3				
	17	15.8	16.7	16.7				
	24	16.3	17.1	17.1	13.1	14.8		
	31	16.3	17.1	17.1	12.9	14.4		
June	7	15.0	15.4	15.4	12.3	13.8		
	14	15.0	15.4	15.4	11.7	12.9		
	21	16.2	17.5	17.5	12.3	13.3		
	28	16.2	17.5	17.5	12.9	15.0		
					16.9	17.1	14.8	

Appendix Table 10a (concl.)

Celery: Weekly Wholesale to Retail (a) Prices at Halifax and Montreal, 1974

Week Ending	Halifax				Montreal			
	Florida		California		Florida	California	Ontario	Quebec
	crt. 3 doz.	crt. 2 doz.	crt. 2 doz.	crt. 3 doz.	ctn. 2-2½ doz.	ctn. 2-2½ doz.	crt. 2-2½ doz.	crt. 2 doz.
- cents per pound -								
July 5	20.0	20.0	20.0		14.6	17.9	14.0	
12	19.2	20.0	20.0		13.6	15.4	12.3	8.1
19			19.2	18.3		17.3	11.5	8.1
26			19.2	18.3		17.5	14.6	10.2
Aug. 2			18.3	17.9		15.8	13.3	10.8
9			16.7(b)	16.0		14.6		8.8
16			16.7(b)	16.0		13.3		8.8
23			16.7	16.0		13.1		8.8
30			15.8	15.0				7.1
Sept. 6			13.3	13.3				6.3
13			15.7	15.0				6.3
20			15.7	15.7				6.7
27			15.7	15.7				6.7
Oct. 4			15.7	17.1		12.9		6.5
11			13.3	13.3		14.6		7.1
18			13.3	13.3		14.4		7.1
25			14.6	14.3		15.6		8.1
Nov. 1			16.3	15.7		16.7		
8			19.2	17.1		15.4		
15			17.9	17.1		14.2		
22			17.9	17.1		12.1		
29			17.9	17.1		10.6		
Dec. 6			13.8	15.0		10.4		
13			12.5	12.8	9.8	10.6		
20			12.5	12.5	10.0	10.6		
27			12.5	12.5		11.1		

(a) Represents sixty pounds per package.

(b) Quotation for Ontario, carton of 3 dozens.

Source: Agriculture Canada.

Celery: Weekly Wholesale to Retail ^(a) Prices at Toronto, Winnipeg and Vancouver, 1974							
Week Ending	Toronto		Winnipeg		Vancouver		
	Florida crt.	California crt.	California crt.	Manitoba ctn.	B.C. ctn.	California ctn.	
	2-6 doz.	2-4 doz.	2-3 doz.	50 lb.	2½ doz.	2½ doz.	
- cent per pound -							
Jan. 4		8.8	12.1			10.0	
11	8.3	9.8	11.3			10.9	
18	9.2	10.2	11.3			11.5	
25	9.0	9.2	11.5			11.3	
Feb. 1	8.1	8.8	11.1			10.7	
8	8.6	9.4	10.6			10.5	
15	9.4	10.4	10.8			11.8	
22	9.0	10.4	12.3			12.6	
Mar. 1	8.6		11.7			12.6	
8	8.1		10.6			11.9	
15	8.1	9.0 (b)	9.8			10.3	
22	8.6	10.0 (b)	10.6			10.8	
29	7.9	9.2 (b)	10.6			10.8	
Apr. 5	7.7	9.0 (b)	10.3			10.9	
12	7.3	9.4 (b)	10.0			10.4	
19	8.1	9.4 (b)	9.9			10.8	
26	7.9	10.6	10.6			10.2	
May 3	10.2	13.6	11.3			11.6	
10	12.1	15.2	12.5			13.7	
17	12.1	15.4	12.1			15.4	
24	12.7	14.4	16.2			16.7	
31	11.1	12.9	14.2			15.1	
June 7			13.8			13.8	
14	11.9 (c)	12.9 (c)	13.3			15.1	
21	14.4 (c)	16.1 (c)	14.6			16.4	
28	15.6 (c)	15.6 (c)	14.8			17.1	
			14.0				

Appendix Table 10b (concl.)

Celery: Weekly Wholesale to Retail(a) Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto		Winnipeg		Vancouver California ctn. 2½ doz.
	Florida crt. 2-6 doz.	California crt. 2-4 doz.	California crt. 2-3 doz.	Manitoba ctn. 2½ doz.	
			- cent per pound -		
July					
5	15.2(c)	15.6(c)	15.8		16.9
12		15.6(c)	15.6		16.5
19		16.9(c)	15.0		16.4
26			19.0		
Aug.			16.1		
2				14.5	13.8
9				14.5	13.6
16				14.5	12.9
23				12.0	11.7
30				12.8	11.7
Sept.				12.3	11.7
6			12.1		
13			15.6		
20			13.3		
27			15.8		
			15.0		
Oct.			13.9		
4		12.3	13.8	11.0	
11			15.4	13.5	
18			15.2	13.5	
25		14.4	15.8		
Nov.		15.0	16.9		
1		14.2	16.9		
8		13.1	16.9		
15		11.9	16.5		16.3
22		10.2(b)	14.0		13.6
29		10.4(b)	11.6		11.8
Dec.		11.1(b)	11.7		11.8
6		10.8(b)	11.7		11.5
13		11.3(b)	11.7		11.5
20					
27					

(a) Represents 60 pounds per package.

(b) Quotations for carton of 2-4-5 dozen.

(c) Quotations for cartons all sizes.

Source: Agriculture Canada.

Appendix Table 11a (concl.)

Imported United States Celery: Total Landed Costs; Cost f.o.b.; Freight, Brokerage
and Other Costs; Cost of Duty; Toronto; Selected
Data by Month, 1972-1974

Month of Shipment	1972					1973					1974				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
- cents per pound -															
October	-	-	-	-	-	Calif.	3.8	3.4	2.0	9.2	Calif.	6.3	3.0	2.0	11.0
	-	-	-	-	-	"	3.7	3.6	2.0	9.3	"	8.4	3.8	2.0	14.2
	-	-	-	-	-	"	4.4	3.4	2.0	9.8	"	7.0	3.8	2.0	12.8
	-	-	-	-	-	"	4.2	3.5	2.0	9.7	"	8.2	3.8	-	12.0
	-	-	-	-	-	"	4.1	3.5	2.0	9.6	"	8.1	3.4	-	11.5
November	Calif.	5.5	3.4	2.0	10.9	Calif.	4.5	3.4	-	7.9	Calif.	8.8	3.8	-	12.6
	"	5.5	3.4	2.0	10.9	"	3.2	3.3	-	6.6	"	8.2	4.0	-	12.2
	"	5.8	3.4	-	9.2	"	4.3	3.3	-	7.6	"	8.5	3.8	-	12.3
	"	5.2	3.0	-	8.3	-	-	-	-	-	"	7.4	3.8	-	11.2
	"	7.1	3.2	-	10.4	-	-	-	-	-	"	6.3	3.8	-	10.1
	"	6.8	3.4	-	10.2	-	-	-	-	-	"	6.3	3.6	-	9.9
	-	-	-	-	-	-	-	-	-	-	"	7.8	4.0	-	11.8
December	Fla.	4.1	2.0	-	6.1	-	-	-	-	-	-	-	-	-	-
	"	4.5	1.9	-	6.4	-	-	-	-	-	-	-	-	-	-
	Calif.	4.7	3.1	-	7.8	-	-	-	-	-	-	-	-	-	-
	"	4.8	3.2	-	8.0	-	-	-	-	-	-	-	-	-	-
	"	4.7	3.2	-	7.9	-	-	-	-	-	-	-	-	-	-

Source: Tariff Board survey.

Appendix Table 11b (concl.)

Imported United States Celery: Total Landed Costs; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Montreal, Winnipeg and Vancouver; Selected Data by Month, 1974																
Month of Shipment	Montreal					Winnipeg					Vancouver					
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	
August	Calif.	3.8	4.2	2.0	10.0	-	-	-	-	-	Calif.	4.8	4.2	2.0	11.0	
	-	-	-	-	-	-	-	-	-	-	"	5.2	3.1	2.0	10.3	
September	-	-	-	-	-	-	-	-	-	-	Calif.	9.9	3.3	2.0	15.2	
	-	-	-	-	-	-	-	-	-	-	"	7.5	3.7	2.0	13.2	
	-	-	-	-	-	-	-	-	-	-	"	5.2	3.7	2.0	10.8	
October	Calif.	5.6	4.0	2.0	11.6	-	-	-	-	-	Calif.	5.5	3.7	2.0	11.2	
	-	-	-	-	-	-	-	-	-	-	"	6.4	3.7	2.0	12.1	
	-	-	-	-	-	-	-	-	-	-	"	6.0	2.6	2.0	10.6	
November	Calif.	8.3	3.9	-	12.2	Calif.	7.5	4.6	2.0	14.1	Calif.	7.6	2.9	2.0	12.5	
	"	8.2	4.1	-	12.3	"	7.3	4.2	2.0	13.5	"	7.1	3.1	2.0	12.3	
	"	6.7	3.6	-	10.3	"	6.8	4.1	2.0	12.9	-	-	-	-	-	
December	Calif.	5.4	3.8	-	9.2	Calif.	4.8	2.5	2.0	9.2	Calif.	4.8	2.6	-	7.3	
	"	5.6	4.6	-	10.2	"	4.4	2.4	2.0	8.8	"	5.1	2.6	-	7.7	
	-	-	-	-	-	Fla.	4.9	2.0	2.0	8.9	-	-	-	-	-	

- cents per pound -

Source: Tariff Board survey.

Appendix Table 12

**Celery: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States,
by States, 1966-1974**

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
California		17,500	17,400	18,600	18,600	18,025
Florida		11,600	11,700	10,900	10,400	11,150
Other States		<u>4,440</u>	<u>4,120</u>	<u>3,980</u>	<u>3,690</u>	<u>4,058</u>
Total	32,722	33,540	33,220	33,480	32,690	33,233
- Production '000 lb. -						
California		973,600	988,600	1,057,600	1,078,300	1,024,525
Florida		455,300	477,200	456,100	403,700	448,075
Other States		<u>162,000</u>	<u>136,300</u>	<u>164,700</u>	<u>165,600</u>	<u>157,150</u>
Total	1,516,200	1,590,900	1,602,100	1,678,400	1,647,600	1,629,750
- Average Yield lb. -						
California		55,634	56,816	56,860	57,973	56,839
Florida		39,250	40,786	41,844	38,817	40,186
Other States		36,486	33,082	41,382	44,878	38,726
Total	46,336	47,433	48,227	50,131	50,401	49,040
- Farm Value \$'000 -						
California		52,454	56,964	60,785	60,071	57,568
Florida		24,368	36,245	27,769	22,163	27,636
Other States		<u>10,086</u>	<u>9,585</u>	<u>12,798</u>	<u>11,722</u>	<u>11,048</u>
Total	76,948	86,908	102,794	101,352	93,956	96,252
- Farm Value ¢ per lb. -						
California		5.4	5.8	5.7	5.6	5.6
Florida		5.4	7.6	6.1	5.5	6.2
Other States		6.2	7.0	7.8	7.1	7.0
Total	5.1	5.5	6.4	6.0	5.7	5.9

Source: U.S. Department of Agriculture.

Celery: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year (a)	Atlantic Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	-	-	-	June 16	Nov. 9	146	July 8	Nov. 17	132
1967	-	-	-	July 7	Nov. 6	122	July 18	Nov. 22	127
1968	-	-	-	June 25	Nov. 15	143	July 16	Nov. 19	126
1969	-	-	-	June 18	Nov. 7	142	Aug. 1	Nov. 14	105
1970	-	-	-	June 11	Nov. 10	152	July 23	Nov. 5	105
1971	-	-	-	June 22	Nov. 12	143	July 20	Nov. 18	121
1972	-	-	-	June 22	Nov. 10	141	July 12	Nov. 13	124
1973	-	-	-	June 28	Nov. 2	127	July 13	Dec. 28	169
1974	-	-	-	June 20	Oct. 30	132	July 16	Nov. 22	129
1975	-	-	-	June 20	Oct. 21	123	July 10	Nov. 3	116

(a) Government fiscal year commencing April 1st, ending March 31st, following year.
(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.
(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Celery: Dutiable Imports, and the Ad Valorem Equivalent
of the M.F.N., Specific Duty, 1966-1974

Year	Imports					Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non Dutiable		Dutiable				
		'000 lb.	%	'000 lb.	%			
1966	104,988	93,142	88.7	11,84	11.3	6.2	2.0	32.3
1967	122,400	113,772	93.0	8,627	7.0	6.6	2.0	30.3
1968	119,818	109,026	91.0	10,791	9.0	5.0	2.0	40.0
1969	123,654	110,753	89.6	12,901	10.4	7.7	2.0	26.0
1970	120,264	108,246	90.0	12,018	10.0	5.5	2.0	36.4
Average 1966-70	118,225	106,988	90.5	11,237	9.5	6.2	2.0	32.3
1971	134,771	123,179	91.4	11,593	8.6	7.0	2.0	28.6
1972	125,345	107,960	86.1	17,385	13.9	6.3	2.0	31.7
1973	134,109	121,594	90.7	12,515	9.3	8.2	2.0	24.4
1974	139,220	122,905	88.3	16,315	11.7	8.7	2.0	23.0
1975	147,953	134,937	91.2	13,017	8.8	11.0	2.0	18.2
Average 1971-75	136,280	122,115	89.6	14,165	10.4	8.2	2.0	24.4

Source: Statistics Canada,

SWEET CORNTable of Contents

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SWEET CORN

Corn-on-the-cob, under tariff item 8710-1, refers to sweet corn (Zea mays var. Paccarata) as opposed to other types of corn for livestock feed and other uses. Sweet corn belongs to the grain family and is related to wheat, oats, barely, and rice. It is distinguished from other corn types (e.g., flint, dent and popcorn) by its high sugar content when kernels are in the milk and early slough stages and by its crinkled and translucent kernels when dry.

Earliest records of sweet corn date to the eighteenth century, in Guatemala, but it was not until 1828 that it began to be listed in U.S. seed catalogues. Since then, sweet corn has become a highly popular vegetable - at least in North America. Fresh, on-the-cob, it is served boiled, steamed or roasted; for processing, kernels are cut or scraped from the cob. Large quantities of sweet corn are used for canning and freezing.

Fresh sweet corn is highly perishable. Even under the best conditions - prompt cooling of the cob to 4°C followed by continuous refrigeration near 0°C - it will have satisfactory culinary quality for only a maximum of eight days.

Sweet corn is an important vegetable in Canada, produced and used in all parts. Commercial production in 1974 was about 500 million pounds, valued at more than \$16 million. The same year per capita consumption, in fresh and processed form, was 21.0 pounds.

GROWING, HARVESTING AND MARKETING

Sweet corn is adapted to a wide range of climates. However, it is essentially a warm season crop, growing best during hot weather. It is easily killed by frost and can be seriously injured if exposed to prolonged, cool temperatures of several degrees above freezing. Most processing corn is grown in areas where the mean temperature is 18°C to 20°C during June, July, and August.

Sweet corn grows best in deep, well-drained fertile soil, with a continuous supply of moisture. The most critical time for moisture is during silking and kernel growth.

Seeding time depends on desired harvest dates as days to maturity vary with temperature and varieties. A variety may require 85 days to reach maturity if planted in early May but only 65 days if planted in mid June.

The crop is harvested in the "milk stage," when the sugar level is highest and kernels are most tender. Normally, corn is hand-picked for the fresh market and mechanically harvested for processing.

Most commercial varieties are hybrids developed to meet different market requirements and growing seasons. Seed varieties for canning and freezing are selected and supplied by the processor for his specific needs. Fresh market hybrids are chosen on the basis of particular growing seasons, market requirements and marketing dates.

Corn for the fresh market is commonly sold by the dozen ears or cobs. However, at the retail level, it is often sold in packages containing smaller numbers. Corn for processing is normally delivered in bulk and is sold under contract by the ton at a predetermined price for a specific quality or grade.

ACREAGE, PRODUCTION AND FARM VALUE

Data on total acreage, volume and value of sweet corn production in Canada are shown in Table 1; separate figures for the processing and fresh markets are given in Appendix Tables 2 and 3. In 1971-74, the area under corn averaged 67,765 acres, 24 per cent more than in 1961-65. About three-quarters of the 1971-74 acreage was under processing corn. Ontario had 71.7 per cent of this acreage but accounted for only a little more than 30 per cent of the acreage for fresh market corn (Quebec had 53.9 per cent). The two provinces accounted for about 90 per cent of total acreage and production in 1971-74. The major expansion in acreage which took place since 1960-65 occurred in Ontario.

Total annual production during 1971-74 averaged more than 500 million pounds, 32.4 per cent more than in 1961-65. While processing corn production rose by 40.3 per cent during this period, fresh market corn declined by 3.4 per cent. In 1971-74, processing corn constituted 86.7 per cent of total production compared with 81.8 per cent in 1961-65.

Production has increased more than acreage largely because the average yield per acre, overall, rose by 6.7 per cent during the review period. Yields of processing corn have risen while those for fresh market corn have declined; the yield of the former is also very much higher than that of the latter. The average yield per acre in 1971-74 was 8,641 pounds for processing corn compared with 3,793 pounds for fresh market corn. The overall yield per acre in 1971-74 was highest in British Columbia (9,834 pounds) and lowest in the Maritimes (3,620 pounds). For fresh market corn the yields also were highest in British Columbia which had 6,870 pounds per acre. Ontario and Quebec, accounting for the bulk of fresh market production, realized yields of 4,783 and 2,898 pounds respectively.

The average farm value of sweet corn produced in Canada in 1971-74 (\$11.5 million) was almost 75 per cent greater than that realized in 1961-65. This growth resulted from higher average yields per acre and higher returns per pound. Average farm values per pound increased by 35.3 per cent from 1.7 cents in 1961-65 to 2.3 cents in 1971-74. The price received for fresh market corn is substantially higher than that for processing corn and has also increased more rapidly. In 1974, farmers received an average of 8.2 cents per pound for fresh market corn compared with 2.5 cents per pound for processing corn.

Table 1: Sweet Corn, Fresh and Processing: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
	- Acreage -							
Maritimes	708	800	770	820	860	910	840	+ 18.6
Quebec	18,450	20,636	19,800	15,830	18,400	19,320	18,338	- 0.6
Ontario	25,008	31,188	37,990	39,260	43,470	44,900	41,405	+ 65.6
Prairies	6,620	3,767	3,840	3,230	3,083	3,313	3,368	- 49.1
B.C.	3,842	3,565	3,760	3,650	4,247	3,607	3,814	- 0.7
Canada	54,628	59,956	66,160	62,790	70,060	72,050	67,765	+ 24.0
	- Production, '000 lb. -							
Maritimes	3,245	3,160	2,984	3,344	2,814	3,021	3,041	- 6.3
Quebec	95,375	124,700	133,148	68,655	91,776	103,646	99,306	+ 4.1
Ontario	218,687	257,728	314,610	359,904	330,126	330,854	333,874	+ 52.7
Prairies	31,943	20,912	27,773	24,198	27,523	27,154	26,662	- 16.5
B.C.	28,763	42,104	34,725	42,118	41,917	31,259	37,505	+ 30.4
Canada	378,013	448,604	513,240	498,219	494,156	495,934	500,387	+ 32.4
	- Average Yield, lb. -							
Maritimes	4,583	3,950	3,875	4,078	3,272	3,320	3,620	- 21.0
Quebec	5,169	6,043	6,725	4,337	4,988	5,365	5,415	+ 4.8
Ontario	8,745	8,264	8,281	9,167	7,594	7,369	8,064	- 7.8
Prairies	4,825	5,551	7,233	7,492	8,927	8,196	7,916	+ 64.1
B.C.	7,486	11,810	9,235	11,539	9,870	8,666	9,834	+ 31.4
Canada	6,920	7,482	7,758	7,935	7,053	6,883	7,384	+ 6.7

Table 1: Sweet Corn, Fresh and Processing: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974 (concl.)

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
	- Farm Value, \$'000 -							
Maritimes	183	218	220	243	253	304	255	+ 39.3
Quebec	1,781	2,333	2,528	1,637	2,358	3,499	2,506	+ 40.7
Ontario	3,475	4,532	5,855	6,545	5,961	10,011	7,093	+ 104.1
Prairies	508	294	473	492	559	1,071	649	+ 27.8
B.C.	629	864	827	904	1,059	1,162	988	+ 57.1
Canada	6,576	8,241	9,903	9,821	10,190	16,047	11,490	+ 74.7
	- Farm Value, ¢ per lb. -							
Maritimes	5.6	6.9	7.4	7.3	9.0	10.1	8.4	+ 50.0
Quebec	1.9	1.9	1.9	2.4	2.6	3.4	2.5	+ 31.6
Ontario	1.6	1.8	1.9	1.8	1.8	3.0	2.1	+ 31.3
Prairies	1.6	1.4	1.7	2.0	2.0	3.9	2.4	+ 50.0
B.C.	2.2	2.1	2.4	2.1	2.5	3.7	2.6	+ 18.2
Canada	1.7	1.8	1.9	2.0	2.1	3.2	2.3	+ 35.3

Source: Statistics Canada.

SUPPLY AND DISPOSITION

Sweet corn is one of the few Canadian-produced vegetables where production exceeds domestic consumption. While Canada imports corn, mostly corn-on-the-cob, exports of processed corn (in fresh equivalent weight) have exceeded total imports by a wide margin - on average by 47 million pounds during 1971-74. Consequently, production averaged 500 million pounds and consumption 453 million (see Table 2) pounds annually during this period.

Consumption of sweet corn, both on the cob and processed, in 1971-74 was 18.4 per cent higher than in 1961-65 when 383 million pounds were consumed annually. Most of the growth in consumption was attributable to greater disappearance in the processed form - an increase of 21.3 per cent. However, fresh market usage also expanded, by 8.6 per cent. In 1971-74, more than 79 per cent of the sweet corn consumed in Canada had been processed.

Per capita consumption of processed corn has gone up to 16.3 pounds from 15.6 pounds between 1961-65 and 1971-74. On the other hand, per capita consumption of fresh corn has fallen from 4.6 pounds to 4.3 pounds. Overall per capita consumption increased slightly to 20.6 pounds from 20.2 pounds during the review period. The trend toward increased consumption of processed corn (canned and frozen) seems to reflect its relatively cheaper price, ease of consumption and year-round availability.

Exports have been confined to processed corn and, as implied above, have risen at a much faster rate (more than 400 per cent) than domestic consumption (18.4 per cent). In 1971-74, annual exports averaged 81.0 million pounds (16.2 per cent of production) compared with 15.8 million pounds (4.2 per cent of production) in 1961-65.

Imports of sweet corn increased by 65.5 per cent from 20.3 million pounds in 1961-65 to 33.6 million pounds in 1971-74. During most of this period, approximately 90 per cent of imports appear to have been for fresh market consumption and none for processing. However, in recent years, imports of canned and frozen corn (the latter for re-export) have tended to increase more rapidly than imports of fresh produce. Overall, imports have gained in relation to Canadian production but still accounted for the equivalent of only 7.4 per cent of total domestic disappearance in 1971-74, compared with 5.3 per cent in 1961-65. Imports, during 1971-74, accounted for 29.5 per cent of fresh market consumption and for only 1.3 per cent of consumption in processed form.

Domestic sweet corn for the fresh market is not available from November to June and Canadian consumers must, at that time, depend on imports. Occasionally, a small volume of domestic corn is marketed in June but imports remain the prime source of supply. As can be seen from Appendix Table 5, the bulk of fresh market corn, 86 per cent during 1971-74, was produced during August and September. Imports during these two months were small, in absolute as well as relative terms, and accounted for 6.2 and 1.0 per cent of consumption. Imports during these two months have increased their small share of the market since 1961-65, when they held 3.4 and 0.5 per cent. About 15 per cent

Table 2: Sweet Corn: Supply and Disposition, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb. -				
<u>Total Production</u>								
For fresh market	378,013	448,604	513,240	498,219	494,156	495,934	500,387	+ 32.4
For processing	68,950	71,016	78,974	59,381	64,454	63,740	66,637	- 3.4
	309,063	377,588	434,266	438,838	429,702	432,194	433,750	+ 40.3
<u>Total Imports</u>								
Fresh	20,288	23,869	21,490	29,182	31,799	51,861	33,583	+ 65.5
Processed (canned) (a)	18,130	20,989	20,805	28,462	30,386	31,980	27,908	+ 53.9
Processed (frozen) (b) (c)	2,128	2,399	176	369	1,074	16,984	4,651	+ 118.6
	30	481	509	351	339	2,897	1,024	+3,313.3
<u>Total Supply Available</u>	398,301	472,473	534,730	527,401	525,955	547,795	533,970	+ 34.1
Available for processing or imported processed								
From domestic production	311,221	380,468	434,951	439,558	431,115	452,075	439,425	+ 41.2
Imported processed	309,063	377,588	434,266	438,838	429,702	432,194	433,750	+ 40.3
	2,158	2,880	685	720	1,413	19,881	5,675	+ 163.0
Available for fresh market	87,080	92,005	99,779	87,843	94,840	95,720	94,545	+ 8.6
From domestic production	68,950	71,016	78,974	59,381	64,454	63,740	66,637	- 3.4
Imported	18,130	20,989	20,805	28,462	30,386	31,980	27,908	+ 53.9

Table 2: Sweet Corn: Supply and Disposition, Canada, 1961-1974 (concl.)

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- '000 lb. -								
Total Exports ^(e)								
Processed (canned)	15,756	43,734	54,878	88,202	104,562	76,271	80,978	+ 414.0
Processed (frozen)	12,723	27,693	37,867	51,021	50,685	25,656	41,307	+ 224.7
	3,033	16,041	17,011	37,181	53,877	50,615	39,671	+ 1,208.0
Total Domestic Disappearance	382,545	428,739	479,852	439,199	421,393	471,524	452,992	+ 18.4
Consumed in processed form	295,465	336,734	380,073	351,356	326,553	375,804	358,447	+ 21.3
From domestic production	293,337	334,335	379,897	350,987	325,479	358,820	353,796	+ 20.6
Imported processed	2,128	2,399	176	369	1,074	16,984	4,651	+ 118.6
Fresh market consumption	87,080	92,005	99,779	87,843	94,840	95,720	94,545	+ 8.6
From domestic production	68,950	71,016	78,974	59,381	64,454	63,740	66,637	- 3.4
Imported	18,130	20,989	20,805	28,462	30,386	31,980	27,908	+ 53.9

(a) Converted to fresh equivalent on the basis of 2.02 lb. fresh per 1 lb. canned products.

(b) Converted to fresh equivalent on the basis of 3.33 lb. fresh per 1 lb. frozen products.

(c) Re-exports data used.

(d) Four-year average omitting 1961.

(e) Includes re-exports.

Source: Derived from Statistics Canada and Agriculture Canada data.

of Canadian sweet corn production is marketed in July and October. Imports during July represented about half of domestic disappearance in that month while during October they comprised 13 per cent. As can be seen in the following table, during the domestic production season of July to October, Canadian growers supplied, on average, 80 per cent of the Canadian fresh market during 1971-74 - a somewhat smaller share than in previous years.

Table 3: Sweet Corn: Fresh Market Production, Imports and Consumption, 1961-65 to 1971-74

	<u>1961-65</u>	<u>1966-70</u>	<u>1971-74</u>
	- '000 lb. -		
Production			
On-season (a)	68,921	71,016	66,389
Off-season (b)	29	-	249
Total	<u>68,950</u>	<u>71,016</u>	<u>66,637</u>
Imports			
On-season (a)	6,346	6,453	9,060
Off-season (b)	<u>11,784</u>	<u>14,536</u>	<u>18,848</u>
Total	<u>18,130</u>	<u>20,989</u>	<u>27,908</u>
Consumption			
On-season (a)	75,267	77,469	75,449
Off-season (b)	<u>11,813</u>	<u>14,536</u>	<u>19,097</u>
Total	<u>87,080</u>	<u>92,005</u>	<u>94,545</u>
Imports as % of Consumption			
On-season (a)	8.4	8.3	12.0
Off-season (b)	99.8	100.0	98.7
Total	20.8	22.8	29.5

(a) July-October growing season.

(b) January-June, November and December.

Source: Appendix Table 6.

IMPORTS

Statistics on imports for fresh market consumption from 1966 to 1975 are shown in Appendix Table 7. As stated earlier, most imports arrive during off-season months. From 1966 to 1975 all imports came from the United States - 67 per cent from Florida and 10 per cent from California (see Appendix Table 10).

In relation to population, western provinces have taken a large share of imports in recent years. In 1975, imports of fresh market corn into that region amounted to 12.1 million pounds - 37 per cent of total Canadian imports compared to 27 per cent of the country's population (western provinces produce about 13 per cent of all the sweet corn grown in Canada). Imports into the

central region, though large, grew less rapidly - from 15.6 million pounds in 1966-70 to 19.8 million pounds in 1975. This 27 per cent increase compares with 151.2 per cent for the western provinces and 69.5 per cent for the Atlantic region. Imports in the Atlantic region, though increasing, constituted only 3 per cent of the total Canadian imports in 1975.

PRICES

Separate price data for fresh market and processing corn are available only in terms of returns to farmers. Beyond the farm level, prices pertain to fresh market sales only. As processing corn is grown for the specific requirements (varieties) of a processor, usually at pre-arranged contract prices (in certain cases agreed upon as early as February and March), it is obvious that a wholesale or retail market for processing corn does not exist in the same sense as for fresh market corn.

There is also a difference in harvesting and marketing practices. Fresh market corn is mostly hand-picked, hydro-cooled, packaged and sold by the dozen directly to the retail outlets. Processing corn is mechanically harvested and is usually delivered, by the ton, in trucks. The processor usually owns the harvesting equipment, supplies the seed, and harvests the corn when it is ready to serve his purpose. Thus, prices paid for fresh market corn are substantially higher than those paid for processing corn.

As it has been indicated, the rise in the average farm price of fresh market corn in Canada between 1961-65 and 1971-74 was approximately twice that of processing corn. On a regional basis, average farm prices per pound for fresh market corn in 1974 ranged between 7.1 cents in Quebec and 10.1 cents in the Maritimes (see Appendix Table 3). For processing corn, prices ranged between 2.1 cents in Quebec and 2.8 cents in British Columbia.

Table 4 shows the average monthly wholesale-to-retail selling prices for domestic and imported fresh market corn sold in Halifax, Montreal, Toronto, Winnipeg, and Vancouver in 1974. Not surprisingly, quotations are available for domestic corn only from July to October. Moreover, price quotations for imports are generally lacking when the bulk of the Canadian output is being marketed. The paucity of import prices in the on-season months seems to suggest a market situation dominated largely by Canadian producers. Indeed, usually during the beginning of the Canadian season when comparisons are possible, domestic prices appear to have been lower than import prices in all centres surveyed in 1974, except for Winnipeg, and occasionally in Vancouver.

Table 4: Wholesale-to-Retail Selling Prices for Domestic and Imported Sweet Corn in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974^(a)

	Halifax		Montreal		Toronto		Winnipeg		Vancouver	
	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.
- ¢ per lb. -										
Jan.	-	18.2	-	13.5	-	13.4	-	12.0	-	15.3
Feb.	-	16.2	-	12.6	-	12.4	-	-	-	15.5
Mar.	-	17.8	-	13.9	-	12.6	-	14.2	-	16.4
Apr.	-	15.7	-	12.4	-	12.3	-	12.5	-	16.8
May	-	14.7	-	11.7	-	11.8	-	13.6	-	16.7
June	-	15.1	-	11.5	-	10.9	-	13.5	-	19.5
July	-	15.4	12.5	12.9	-	-	-	14.3	-	17.2
Aug.	11.7	13.4	13.5	10.5	11.2	-	12.8	10.6	19.0	14.5
Sept.	9.4	-	-	-	9.2	-	13.8	10.7	16.7	-
Oct.	10.0	-	-	-	7.6	11.7	15.1	13.7	15.5	-
Nov.	-	-	-	11.2	-	10.7	-	13.5	-	16.3
Dec.	-	-	-	11.4	-	13.2	-	13.0	-	17.8

(a) As based on a price per pound comparison of: Imported, 4½-5 doz. (50 lb.) and domestic, 4-5 doz. (38 lb.) Halifax domestic, 4 doz. (32 lb.).

Source: Appendix Tables 11a and 11b.

The landed cost of fresh market corn at Toronto from 1972-74 and at Winnipeg and Vancouver in 1974, and a breakdown of this cost into its components are found in Appendix Tables 12a and 12b. The figures indicate that freight and related costs were substantially greater than the cost of duty during the dutiable periods for which comparative data are available. Thus, with reference to imports into Winnipeg in 1974, the charges ranged from 4.0 to 4.3 cents per pound while the specific duty was 1.5 cents. In Vancouver, freight and brokerage charges ranged from 3.8 cents to 5.4 cents per pound. It appears from the above data that costs such as transportation and brokerage afforded more than twice the protection provided by the duty.

The protection resulting from transportation and brokerage on imports is of limited benefit to Canadians who ship corn between regions and thus incur substantial transportation costs themselves. Based on the evidence shown, it appears that most sweet corn produced in Canada is consumed locally.

CANADA-UNITED STATES COMPARISONS

Total sweet corn production in the United States averaged 5.5 billion pounds in 1971-74, a volume some 10 times greater than Canada's (see Appendix Table 13a). While U.S. production increased by 0.2 per cent from the average for 1966-70, Canadian output over the same period increased by 11.5 per cent. Of total production in 1971-74, about 87 per cent in Canada was used for processing compared with 76 per cent in the United States.

In 1971-74, average U.S. production of fresh market corn amounted to 1,309 million pounds, about 20 times more than Canada's 67 million pounds (see Appendix Table 13b). While U.S. average production of fresh market corn in 1971-74 increased by 1.9 per cent from the 1966-70 average, Canadian production dropped by 6.2 per cent. Florida had about 37 per cent of the U.S. total and was by far the largest producer followed by New York, California, Michigan, and New Jersey. Per capita consumption of corn-on-the-cob has traditionally been substantially higher in the United States than in Canada - 7.4 pounds as opposed to 4.3 pounds (in 1974) - in large part because it is available year round.

Regarding sweet corn for processing, U.S. output during 1971-74 averaged 4.2 billion pounds compared with 433.8 million pounds in Canada. Between 1966-70 and 1971-74, U.S. production remained about the same while Canadian production rose by about 15 per cent. Main producing states were Wisconsin and Minnesota which, like Canada, have one crop only. They accounted for about half of the processing corn produced in the United States during 1971-74.

The average yield per acre realized by U.S. growers was 8,909 pounds in 1971-74, about 20 per cent more than the 7,384 pounds realized by Canadian growers. The average U.S. yield increased by 5 per cent from 1966-70 to 1971-74 while Canada's declined by 1.3 per cent. However, when yields for processing and for fresh market consumption are considered separately, the differences in yields obtained in the two countries are much more pronounced in the case of fresh market corn. For processing corn, U.S. growers had a 10.1 per cent advantage in 1971-74; for fresh market corn, the yield was about twice that obtained in Canada. Moreover, the gap between the two in average yields has tended to widen.

Yields are particularly high in California and Florida from which Canada imports the bulk of its fresh market corn during times when there is no Canadian supply. However, on the whole, Michigan, New Jersey, and New York, which have a production season similar to Canada and are directly competitive with Canadian growers, also have much greater yields per acre. Comparative statistics are shown below.

Table 5: Comparative Yields per Acre, Fresh Market Sweet Corn, Principal Producing Areas, Summer, United States and Canada, 1971-74

<u>Canada</u>	<u>lb.</u>	<u>United States</u>	<u>lb.</u>
Quebec	2,898	New York	6,962
Ontario	4,783	New Jersey	6,947
British Columbia	6,870	Michigan	6,558

Source: Appendix Tables 3 and 13b.

Average farm values for fresh market corn for different areas in the two countries for 1971-74 are given in Table 6.

Table 6: Fresh Market Sweet Corn: Average Farm Values per Pound in Cents, Canada and United States, 1971 to 1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
	- ¢ per lb. -			
Canada	4.7	5.8	6.2	8.2
Maritimes	7.4	7.3	9.0	10.1
Quebec	3.7	6.4	5.6	7.1
Ontario	5.4	5.4	6.6	9.2
Prairies	4.1	4.4	5.3	7.9
British Columbia	7.4	6.9	7.5	9.5
United States	5.8	6.3	6.8	7.8
California	6.0	5.6	7.3	9.3
Florida	6.7	6.5	7.1	7.5
Michigan	4.6	4.2	5.3	7.8
New Jersey	5.3	6.8	6.9	8.7
New York	4.3	6.1	6.0	6.6
Other States	5.8	6.6	6.7	8.1

Source: Appendix Tables 3 and 13b.

Except in 1974, the average farm value for fresh market corn was lower in Canada than in the United States. The U.S. average annual return, it should be noted, is influenced in part by the inclusion of sweet corn produced in the winter which realizes, on average, a higher price for the grower. The average return in Florida and California tends to be higher than in states with a summer crop only. Average farm values in these one-crop states tend to be lower than those in Ontario, the Maritimes, and British Columbia, but are somewhat above those in Quebec.

Assuming average farm values in the long run to be indicative of production cost, and considering only those states with a climate comparable to Canada, it would seem that U.S. growers have an advantage. As indicated earlier, Canadians produce substantially less per acre than their U.S. counterparts.

The Board attempted to obtain data on production costs in Canada and the United States for sweet corn for the fresh market. However, none was available that permitted meaningful comparisons. What was available, however, indicates fairly clearly that production costs in Ontario are higher than those in neighbouring states such as Ohio and New York.

With respect to sweet corn for processing the Board did not obtain satisfactory production costs for the two countries. A cost study for Wisconsin, a major producing state, indicates, for 1970, unit costs of 1 cent per pound, comparable to the average farm value per pound of 1.1 cents reported for that state in 1971 (see Appendix Table 13c). This suggests that unit farm values are probably

indicative of U.S. production costs. Cost studies obtained for Ontario, Quebec, and British Columbia demonstrate that unit costs in Canada in 1974 varied from 1.6 cents in Quebec to 2.3 cents in British Columbia; Ontario unit costs were close to 2.0 cents per pound. This order is substantiated by reported average unit farm values for 1974, although, not surprisingly, the latter were higher than the unit costs (see Appendix Table 2).

The average unit farm value of processing corn was lower in the United States than in Canada until 1973 and 1974. In terms of major growing regions, Oregon and Washington were much higher than British Columbia and Alberta. On the other hand, unit farm values in Wisconsin and Minnesota in 1973 and 1974 were lower than in Ontario and about the same as in Quebec. Assuming that differences in unit farm values between Canada and the United States are indicative of differences in unit costs of production, it would appear that Ontario growers, who account for about 70 per cent of Canadian output, are at some disadvantage with growers in the nearest growing regions in the United States. Growers in Quebec appeared to have had a slight advantage at that time.

TARIFF CONSIDERATIONS

Sweet corn in its natural state (on the cob) enters under tariff item 8710-1, at the following rates of duty:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
8710-1 Corn on the cob pound	Free	1½ cts. or Free	1½ cts. or Free

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 12 weeks, and the Free rate shall apply whenever the specific duty is not in effect.

When subject to specific rates of duty and imported in packages five pounds or less, each, see additional duty following item 8731-1.

The additional duty on corn-on-the-cob imported in packages of 5 pounds or less each is 5 p.c. M.F.N. and 10 p.c. Gen.

The M.F.N. rate was 27½ per cent ad valorem in 1935 which was lowered to 15 p.c. in 1936 and to 10 p.c. in 1939. In 1959, a seasonal specific rate of 1½ cents per pound for a maximum period of eight weeks was introduced, with an ad valorem rate of 10 per cent applicable during the remainder of the year. An additional packaging duty at 5 p.c. M.F.N. was also introduced, to apply to corn imported in packages of 5 pounds or less. On January 1, 1968, the maximum period for the seasonal specific duty was extended to 12 weeks, and the 10 p.c. rate was replaced by Free. The additional duty on

consumer packs remained the same. Since April 10, 1959 the Gen. rate of duty has not differed from the M.F.N. rate, except for a higher additional duty on consumer packs of 10 p.c. Prior to this date, a Gen. rate of 30 p.c. had been in force. The rate for the British Preferential Tariff has traditionally been Free, as shown in Table 7. However, imports from British Preferential and General Tariff areas have been negligible.

Table 7: Corn-on-the-Cob: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935 ^(a)	Free	27½ p.c.	30 p.c.
1936-38	Free	15 p.c.	30 p.c.
1939-59 (Apr. 9)	Free	10 p.c.	30 p.c.
1959-67 (Apr. 10) ^{(a)(b)}	Free	1½ cts. (8 weeks) 10 p.c.	1½ cts. (8 weeks) 10 p.c.
1968 (Jan. 1)	Free	1½ cts. (12 weeks) Free	1½ cts. (12 weeks) Free

(a) Imports from the United States were subject to the General Tariff until December 31, 1935.

(b) Prior to April 10, 1959, was classified as "Vegetables, fresh, n.o.p."

(c) Since April 10, 1959, packages weighing 5 pounds or less have been subject to an additional duty of 5 p.c. M.F.N. and 10 p.c. Gen.

Source: Canadian Customs Tariff.

The Canadian Horticultural Council did not propose a change in the current rate of duty on sweet corn-on-the-cob. It did, however, propose an extension of the period for application of the seasonal duty from 12 weeks to 16 weeks. The Council argued that newer varieties of sweet corn have been developed, that have resulted in a longer production period.

The extent to which the seasonal duty was applied between 1966 and 1975 is indicated in Appendix Table 14. In the Maritimes region, the duty was in effect for the full 12-week period between 1972 and 1975, from July-August to October-November, depending on the year. In central and western Canada, during the past seven years, the seasonal duty has also been in effect for the full 12 weeks.

The additional four weeks for application of the seasonal duty, requested by the Council, would make imports during this time dutiable and would thus increase the cost to the Canadian consumer. It will be recalled that close to 86 per cent of the sweet corn for the fresh market is produced in August and September, a period of

nearly nine weeks. The current 12-week period, therefore, not only covers the heart of the Canadian production season but also some of the early and late crop. Unloads information for 1974 indicates that domestic sweet corn came on the market as early as July 26 and as late as October 18, a period of 85 days, covered entirely by the current tariff provision. On this basis, it could be argued that an extension of the application period is unnecessary since it would not have benefited growers at all. At the same time, it should be recognized that there are several hybrid varieties available which mature within two months. This means that domestic corn, planted in late April, could be picked as early as late June. Then the production season could well be longer than 12 weeks and an extension of the duty application period could encourage additional Canadian output. The quicker-maturing varieties do, however, tend to have shorter ears and therefore yield less than slower-maturing types.

The ad valorem equivalent of the specific duty of $1\frac{1}{2}$ cents per pound has declined as the f.o.b. price of imported sweet corn has increased (see Appendix Table 15). The average ad valorem equivalent of the M.F.N. specific duty was 25.9 per cent for imports in 1966-70, when the average f.o.b. price of imported corn was 5.8 cents a pound. In 1971-75, it dropped to an average of 20.8 per cent, when the average f.o.b. price increased to 7.2 cents a pound, and in 1975, the ad valorem equivalent was only 16.0 per cent.

The general proposal of the Horticultural Council to increase the additional duty on sweet corn when imported in packages of 5 pounds, or less, is considered elsewhere in this report.

CONCLUSIONS

Canadian production of sweet corn is largely and increasingly for processing. Imports of fresh corn for processing are unknown and believed to be insignificant, and while Canada does not export fresh sweet corn for processing it exports a large proportion already processed. Imports of processed corn are relatively small. Overall, Canada is self-sufficient in terms of corn for processing as well as processed corn.

Canadian output of fresh corn for the fresh market has declined. Consumption has increased as have imports. Imports have increased during the months when there is practically no domestic sweet corn, i.e., during January-June inclusive, November and December. During the Canadian production season, July to October, imports have grown as well, both in volume and as a percentage of on-season consumption, although during 1971-74 domestic growers supplied close to 88 per cent of the market. Imports therefore displace Canadian production to a limited extent only.

Canadian growers must contend with yields well below those achieved in the United States. Notwithstanding the higher yields realized by U.S. growers and the erosion of the specific duty in recent years, the Canadian producer has succeeded largely in maintaining his share of the fresh market. The Board considers that the existing tariff together with transportation charges offers adequate

protection to Canadian growers. The Board, therefore, recommends that the rate of duty remain at $1\frac{1}{2}$ cents per pound under the Most-Favoured-Nation and General Tariff and Free under the British Preferential Tariff. The Board concludes, at the same time, that further erosion of the protection provided by the specific duty is undesirable and recommends that a minimum ad valorem duty of 15 per cent be introduced under the Most-Favoured-Nation and General Tariff.

The Board, furthermore, cannot agree with an extension of the period, during which the seasonal duty can be applied, from 12 to 16 weeks because production, during the additional four weeks requested, accounts, currently, for a very small proportion of sweet corn production in Canada, and is unlikely to increase substantially. The Board recommends that the maximum period of application of the seasonal duty remain 12 weeks.

The additional duty on imports of sweet corn-on-the-cob, when imported in packages 5 pounds or less, as discussed elsewhere in this report, is recommended to remain as well as its present level under all tariffs.

RECOMMENDATIONS

The Board recommends that the present tariff item 8710-1 be deleted from Schedule "A" of the Customs Tariff, and the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Corn-on-the-cob			
..... per pound	Free	$1\frac{1}{2}$ cts. but not less than 15 p.c., or Free	$1\frac{1}{2}$ cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 12 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

Sweet Corn: Acreage and Number of Farms, by
Province and Region, 1961 and 1971

	1961		1971		
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	691	1.2	775	1.1	349
Nfld.	1	*	—	—	—
P.E.I.	37	0.1	34	*	33
N.S.	446	0.7	414	0.6	158
N.B.	207	0.3	327	0.5	158
Central Region	50,148	84.0	60,024	86.3	4,257
Que.	19,159	32.1	19,795	28.4	1,940
Ont.	30,989	51.9	40,229	57.8	2,317
Western Region	8,837	14.8	8,780	12.6	1,003
Man.	1,768	3.0	1,233	1.8	244
Sask.	225	0.4	224	0.3	90
Alta.	4,880	8.2	2,653	3.8	181
B.C.	1,964	3.3	4,670	6.7	488
Canada ^(a)	59,676	100.0	69,579	100.0	5,610

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Sweet Corn: Processing Market Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Farm Value, \$'000 -								
Quebec	740	1,052	1,047	615	835	1,599	1,024	+ 38.4
Ontario	2,605	3,463	4,399	4,929	4,380	7,910(a)	5,405	+ 107.5
Prairies	240	105(a)	281	269	296(a)	545	348	+ 45.0
B.C.	291	508	473	540	658	755	606	+ 108.6
Canada	3,876	5,128	6,200	6,353	6,169	10,809	7,383	+ 90.5
- Farm Value, ¢ per lb. -								
Quebec	1.1	1.2	1.1	1.2	1.3	2.1	1.4	+ 27.3
Ontario	1.3	1.5	1.5	1.5	1.4(a)	2.6(a)	1.8	+ 38.5
Prairies	1.0	0.7	1.2	1.4	1.3	2.7	1.6	+ 60.0
B.C.	1.3	1.4	1.6	1.5	1.8	2.8	1.9	+ 46.2
Canada	1.3	1.4	1.4	1.4	1.4	2.5	1.7	+ 30.8

(a) Tariff Board estimate.

Source: Statistics Canada.

Appendix Table 3

Sweet Corn: Fresh Market Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974						
Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74
- Acreage -						
Maritimes	708	770	820	860	910	840
Quebec	8,234	9,660	8,850	9,380	9,980	9,468
Ontario	3,998	5,240	5,440	5,770	5,200	5,413
Prairies	1,314	1,200	1,150	1,080	1,100	1,133
B.C.	620	690	740	850	590	718
Canada	14,874	17,560	17,000	17,940	17,780	17,570
- Production, '000 lb. -						
Maritimes	3,245	2,984	3,344	2,814	3,021	3,041
Quebec	30,370	39,606	15,981	27,202	26,946	27,434
Ontario	21,491	26,894	29,684	24,126	22,854	25,890
Prairies	7,378	4,685	5,110	4,946	6,622	5,341
B.C.	6,466	4,805	5,262	5,366	4,297	4,933
Canada	68,950	78,974	59,381	64,454	63,740	66,637
- Average Yield, lb. -						
Maritimes	4,583	3,875	4,078	3,272	3,320	3,620
Quebec	3,688	4,100	1,806	2,900	2,700	2,898
Ontario	5,375	5,132	5,457	4,181	4,395	4,783
Prairies	5,615	3,904	4,443	4,580	6,020	4,714
B.C.	10,429	6,964	7,111	6,313	7,283	6,870
Canada	4,636	4,497	3,493	3,593	3,585	3,793
% Change 1961-65 to 1971-74						
Maritimes						+ 18.6
Quebec						+ 15.0
Ontario						+ 35.4
Prairies						- 13.8
B.C.						+ 15.8
Canada						+ 18.1
Maritimes						- 6.3
Quebec						- 9.7
Ontario						+ 20.5
Prairies						- 27.6
B.C.						- 23.7
Canada						- 3.4
Maritimes						- 21.0
Quebec						- 21.4
Ontario						- 11.0
Prairies						- 16.0
B.C.						- 34.1
Canada						- 18.2

Sweet Corn: Supply and Disposition Ratios, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74
-- per cent --							
Per Cent of Domestic Production:							
Sold for Processing	81.8	84.2	84.6	88.1	87.0	87.1	86.7
Sold to Domestic Fresh Market	18.2	15.8	15.4	11.9	13.0	12.9	13.3
Total Imports as Per Cent:							
of Total Supply Available	5.1	5.1	4.0	5.5	6.0	9.5	6.3
of Total Domestic Disappearance	5.3	5.6	4.5	6.6	7.5	11.0	7.4
Fresh Imports as Per Cent:							
of Fresh Market Consumption	20.8	22.8	20.9	32.4	32.0	33.4	29.5
Processed Imports as Per Cent:							
of Consumption in Processed Form	0.7	0.7	*	0.1	0.3	4.5	1.3
of Total Domestic Disappearance	0.6	0.6	*	0.1	0.3	3.6	1.0
Per Cent of Fresh Market Consumption:							
From Domestic Production	79.2	77.2	79.1	67.6	68.0	66.6	70.5
Per Cent of Total Domestic Disappearance:							
Consumed in Processed Form	77.2	78.5	79.2	80.0	77.5	79.7	79.1
Production as % of Total Domestic Disappearance	98.8	104.6	107.0	113.4	117.3	105.2	110.5

Source: Table 2.

Appendix Table 5

Sweet Corn: Estimated Monthly Distribution of Fresh Shipments^(a), 1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
		-	thousand pounds		-	
Jan.	-	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
May	-	-	-	-	-	-
June	-	249	-	-	994	-
July	6,529	5,921	8,313	5,534	8,326	1,512
Aug.	40,606	34,351	39,227	33,271	37,482	27,423
Sept.	20,841	23,017	28,923	17,589	15,578	29,977
Oct.	3,040	3,100	2,511	2,987	2,074	4,828
Nov.	-	-	-	-	-	-
Dec.	-	-	-	-	-	-
Year	71,016	66,637	78,974	59,381	64,454	63,740

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 6

Sweet Corn: Estimated Monthly Distribution of Fresh Market Consumption, 1961-1974

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent	-	- thousand pounds	-	-	per cent
Jan.	100.0	100.0	-	705	705	100.0
Feb.	100.0	100.0	-	618	618	100.0
Mar.	100.0	100.0	-	993	993	100.0
Apr.	100.0	100.0	-	1,442	1,442	100.0
May	100.0	100.0	-	4,435	4,435	100.0
June	100.0	100.0	249	7,809	8,058	96.9
July	41.4	45.4	5,921	6,077	11,998	50.7
Aug.	3.4	2.1	34,351	2,290	36,641	6.2
Sept.	0.5	0.2	23,017	230	23,247	1.0
Oct.	5.5	2.9	3,100	463	3,563	13.0
Nov.	95.2	100.0	-	1,600	1,600	100.0
Dec.	100.0	100.0	-	1,247	1,247	100.0
Total	20.8	22.8	66,637	27,908	94,545	29.5

Source: Derived from Statistics Canada and Agriculture Canada data.

Sweet Corn: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Others</u>	<u>Total</u>
	- thousand pounds -		
1966	21,253	-	21,253
1967	18,747	-	18,747
1968	19,134	-	19,134
1969	24,785	-	24,785
1970	21,026	-	21,026
Average 1966-70	20,989	-	20,989
1971	20,805	-	20,805
1972	28,462	-	28,462
1973	30,385	1	30,386
1974	31,980	-	31,980
1975	32,883	-	32,883
Average 1971-75	28,903	*	28,903

Source: Statistics Canada.

Appendix Table 8

Sweet Corn: Imports by Month, 1966-1975

<u>Month</u>	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
					- thousand pounds -			
Jan.	312	1.5	865	3.0	487	608	786	1,502
Feb.	235	1.1	717	2.5	803	587	806	1,112
Mar.	354	1.7	1,071	3.7	1,080	1,224	1,332	1,386
Apr.	1,110	5.3	1,738	6.0	1,305	1,985	2,094	2,924
May	3,759	17.9	4,406	15.2	5,292	4,598	4,797	4,287
June	6,843	32.6	7,892	27.3	8,177	8,541	6,670	8,225
July	5,439	25.9	6,197	21.4	6,073	6,889	6,368	6,679
Aug.	878	4.2	2,498	8.6	1,523	2,313	4,005	3,333
Sept.	44	0.2	251	0.9	42	175	634	337
Oct.	92	0.4	576	2.0	191	605	924	1,030
Nov.	1,041	5.0	1,550	5.4	2,024	1,403	2,131	1,352
Dec.	881	4.2	1,140	3.9	1,465	1,460	1,432	715
Total	20,989	100.0	28,903	100.0	28,462	30,386	31,980	32,883

Source: Statistics Canada.

Appendix Table 9

Sweet Corn: Imports by Province and Region, 1966-1974

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	586	793	742	689	1,488	993
Nfld.	1	1	2	8	4	-
P.E.I.	26	17	23	22	26	57
N.S.	259	58	246	114	204	211
N.B.	300	716	470	546	1,253	725
Central Region	15,585	14,338	18,781	19,564	19,635	19,789
Que.	6,212	6,197	7,220	8,120	8,132	7,564
Ont.	9,374	8,142	11,560	11,443	11,503	12,225
Western Region	4,818	5,674	8,939	10,133	10,857	12,101
Man.	467	660	1,466	1,188	1,577	2,480
Sask.	304	536	601	856	755	985
Alta.	1,264	1,506	2,629	2,688	2,594	2,568
B.C.	2,783	2,972	4,243	5,401	5,931	6,068
Canada	20,989	20,805	28,462	30,386	31,980	32,883

Source: Statistics Canada.

Appendix Table 10

Sweet Corn: Percentage Distribution of Fresh Market Imports from United States, by State of Origin, by Region, 1972-1974

	<u>Florida</u>	<u>Calif-</u> <u>ornia</u>	<u>Texas</u>	<u>Washing-</u> <u>ton</u>	<u>Virginia</u>	<u>Others</u>	<u>Total</u>
- per cent -							
<u>1972</u>							
Maritime Region	96.7	-	-	-	3.3	-	100.0
Central Region	87.2	-	-	-	3.4	9.4	100.0
Western Region	30.4	39.6	6.8	19.0	-	4.3	100.0
Canada	69.2	12.7	2.2	6.1	2.3	7.6	100.0
<u>1973</u>							
Maritime Region	78.8	-	-	-	19.3	1.9	100.0
Central Region	85.8	-	-	-	3.0	11.2	100.0
Western Region	27.7	33.1	10.3	21.8	-	7.1	100.0
Canada	66.4	11.0	3.4	7.3	2.3	9.7	100.0
<u>1974</u>							
Maritime Region	66.4	3.4	-	-	27.2	3.0	100.0
Central Region	84.0	-	-	-	4.3	11.6	100.0
Western Region	35.8	29.1	1.8	25.8	-	7.5	100.0
Canada	67.1	10.0	0.6	8.8	3.5	10.0	100.0

Source: Agriculture Canada.

Sweet Corn: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974 (concl.)

Week Ending	Toronto		Winnipeg		Vancouver	
	Fla.	Ont.	Fla.	Man.	Fla.	B.C.
	crt. 5 doz. 50 lb.	crt. 5 doz. 38 lb.	crt. 5 doz. 50 lb.	bag 5 doz. 38 lb.	ctn. 5 doz. 50 lb.	ctn. 5 doz. 38 lb.
			- cents per pound -			
July 5			13.5		19.2 (b)	
12			13.5		19.4 (b)	
19			15.8		16.0 (b)	
26			14.3		14.0 (c)	
Aug. 2			11.5 (a)		13.8 (c)	
9			10.0 (a)		13.5 (c)	
16			9.9 (a)	13.4	14.4 (c)	
23		12.2	10.7 (a)	12.5	16.3 (c)	19.0
30		10.2	10.9 (a)	12.5		18.0
Sept. 6		9.9	10.0 (a)	12.5		16.6
13		9.9	10.3 (a)			17.2
20		9.2	10.0 (a)			15.1
27		7.9	12.5 (a)	15.1		15.0
Oct. 4		7.6	15.5 (a)	15.1		15.0
11	13.0		12.4 (a)			16.6
18	11.3		12.4 (a)			17.2
25	10.8		14.5 (a)			15.1
Nov. 1	10.8		14.5			15.0
8	10.8		14.0			16.6
15	10.8		13.3		17.0	17.2
22	10.8		12.8		16.0	15.1
29	10.3		12.7		16.0	15.0
Dec. 6	10.0		12.9		16.1	16.6
13	10.3		12.0		16.1	17.2
20	15.0		13.5		19.8	15.0
27	17.5		13.5		19.2	16.6

(a) Minnesota - Augst 9th to October 25th.
 (b) California - June 14th to July 19th and November 8th to December 13th.
 (c) Washington - July 26th to August 23rd.

Source: Agriculture Canada.

Appendix Table 12a

Imported United States Sweet Corn: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Toronto; Selected Data by Month, 1972-1974															
Month of Shipment	1972				1973				1974				Total Landed Cost		
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.		Cost of Freight	Duty Paid
- cents per pound -															
May	Fla.	5.0	2.6	-	7.6	Calif.	6.4	2.3	-	8.7	Fla.	6.7	3.6	-	10.3
	"	4.0	2.6	-	6.6	Fla.	6.5	2.7	-	9.2	-	-	-	-	-
June	Fla.	4.8	2.4	-	7.2	Fla.	5.8	3.3	-	9.1	Calif.	7.8	2.6	-	10.4
	"	5.0	2.2	-	7.2	Calif.	6.2	2.3	-	8.5	-	-	-	-	-
	-	-	-	-	-	"	6.2	2.1	-	8.3	-	-	-	-	-
July	S.Car.	6.5	1.8	-	8.3	Fla.	8.4	3.1	-	11.5	-	-	-	-	-
	Virg.	7.0	1.7	-	8.7	-	-	-	-	-	-	-	-	-	-
	Calif.	8.3	2.2	1.2	11.7	-	-	-	-	-	-	-	-	-	-
	S.Car.	8.3	2.0	1.2	11.5	-	-	-	-	-	-	-	-	-	-
October	Fla.	6.0	2.6	-	8.6	Fla.	9.7	3.4	-	13.1	Calif.	7.8	2.9	-	10.7
	Calif.	6.0	2.4	-	8.4	-	-	-	-	-	-	-	-	-	-
November	Calif.	5.0	2.2	-	7.2	-	-	-	-	-	-	-	-	-	-
	"	5.0	2.3	-	7.3	-	-	-	-	-	-	-	-	-	-
	"	5.1	3.0	-	8.1	-	-	-	-	-	-	-	-	-	-
	"	5.2	2.6	-	7.8	-	-	-	-	-	-	-	-	-	-

Source: Tariff Board survey.

Imported United States Sweet Corn: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Winnipeg and Vancouver; Selected Data by Month, 1974										
Month of Shipment	Winnipeg					Vancouver				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
- cents per pound -										
March	-	-	-	-	-	Fla.	6.7	5.2	-	11.9
	-	-	-	-	-	"	6.7	5.9	-	12.6
April	Fla.	6.7	4.2	-	10.9	Fla.	6.7	5.9	-	12.6
	-	-	-	-	-	"	8.2	5.8	-	14.0
	-	-	-	-	-	"	7.0	6.9	-	13.9
May	-	-	-	-	-	Fla.	6.7	5.9	-	12.6
	-	-	-	-	-	"	6.7	5.9	-	12.6
	-	-	-	-	-	Calif.	9.6	2.7	-	12.3
	-	-	-	-	-	"	10.7	2.6	-	13.3
June	-	-	-	-	-	Calif.	9.7	2.7	-	12.4
	-	-	-	-	-	"	11.5	3.0	-	14.5
	-	-	-	-	-	"	12.5	3.1	-	15.6
	-	-	-	-	-	"	13.7	2.7	-	16.4
July	-	-	-	-	-	Calif.	10.5	1.1	-	11.6
	-	-	-	-	-	"	11.3	2.7	-	14.0
	-	-	-	-	-	"	11.5	3.1	-	14.6
	-	-	-	-	-	Wash.	8.2	1.1	-	9.3

Imported United States Sweet Corn: Total Landed Cost; Cost f.o.b., Freight, Brokerage and Other Costs; Cost of Duty; Winnipeg and Vancouver; Selected Data by Month, 1974

Month of Shipment	Winnipeg				Vancouver					
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
September	-	-	-	-	- cents per pound	Calif.	10.5	3.8	1.5	15.8
October	Fla. "	6.6 6.6	4.0 4.3	1.5 1.5		Calif. -	6.6 -	5.4 -	1.5 -	13.5 -
November	Fla. - -	6.6 - -	3.5 - -	- - -		Fla. " "	6.6 6.4 6.6	5.4 5.6 5.8	1.5 - -	13.5 12.0 12.4
December	Fla. -	5.9 -	3.9 -	- - -		Fla. " Calif.	5.9 10.9 10.2	5.8 5.7 2.7	- - -	11.7 16.6 12.9

- cents per pound -

Source: Tariff Board survey.

Appendix Table 13a

Sweet Corn: Total Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, United States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
Florida		58,100	56,800	50,900	52,400	54,550
Illinois		53,400	53,900	59,000	61,400	56,925
Minnesota		108,100	117,100	102,000	111,100	109,575
New York ^(a)		16,500	14,500	30,400	32,900	23,575
Oregon		36,900	41,100	42,200	43,100	40,825
Washington		31,100	30,400	40,200	40,800	35,625
Wisconsin		117,900	113,500	132,600	118,100	120,525
Other States		184,100	181,930	171,100	169,350	176,620
Total	648,730	606,100	609,230	628,400	629,150	618,220
- Production, '000 lb. -						
Florida		420,000	490,100	526,600	510,700	486,850
Illinois		538,000	521,000	493,300	438,900	497,800
Minnesota		1,027,000	1,171,000	1,109,800	931,000	1,059,700
New York ^(a)		107,300	94,300	199,200	265,100	166,475
Oregon		461,300	563,100	609,400	610,700	561,125
Washington		323,700	318,300	474,900	481,900	399,700
Wisconsin		1,077,600	1,030,600	1,021,000	904,600	1,008,450
Other States		1,393,800	1,356,800	1,287,500	1,273,100	1,327,800
Total	5,496,620	5,348,700	5,545,200	5,721,700	5,416,000	5,507,900
- Average Yield, lb. -						
Florida		7,229	8,629	10,346	9,746	8,925
Illinois		10,075	9,666	8,361	7,148	8,745
Minnesota		9,500	10,000	10,880	8,380	9,671
New York ^(a)		6,503	6,503	6,553	8,058	7,062
Oregon		12,501	13,701	14,441	14,169	13,745
Washington		10,408	10,470	11,813	11,811	11,220
Wisconsin		9,140	9,080	7,700	7,660	8,367
Other States		7,571	7,458	7,525	7,518	7,518
Total	8,473	8,825	9,102	9,105	8,608	8,909

Appendix Table 13a (concl.)

Sweet Corn: Total Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, United States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Farm Value, \$'000 -						
Florida		27,939	31,681	37,519	38,336	33,869
Illinois		7,850	8,336	9,317	12,691	9,549
Minnesota		10,373	12,237	13,429	20,994	14,258
New York ^(a)		4,603	5,790	8,070	11,728	7,548
Oregon		7,386	9,000	12,716	23,428	13,133
Washington		5,142	5,736	9,898	18,662	9,860
Wisconsin		12,285	13,192	12,456	18,997	14,233
Other States		<u>47,262</u>	<u>51,246</u>	<u>53,929</u>	<u>68,547</u>	<u>55,246</u>
Total	116,636	122,840	137,218	157,334	213,383	157,694
- Farm Value, ¢ per lb. -						
Florida		6.7	6.5	7.1	7.5	7.0
Illinois		1.5	1.6	1.9	2.9	1.9
Minnesota		1.0	1.0	1.2	2.3	1.3
New York ^(a)		4.3	6.1	4.1	4.4	4.5
Oregon		1.6	1.6	2.1	3.8	2.3
Washington		1.6	1.8	2.1	3.9	2.5
Wisconsin		1.1	1.3	1.2	2.1	1.4
Others States		3.4	3.8	4.2	5.4	4.2
Total	2.1	2.3	2.5	2.7	3.9	2.9

(a) Fresh only for 1971 and 1972.

Source: United States Department of Agriculture.

Appendix Table 13b

Sweet Corn: Fresh Market Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, United
States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
California		14,300	15,400	15,200	12,200	14,275
Florida		58,100	56,800	50,900	52,400	54,550
Michigan		12,000	12,200	12,100	11,400	11,925
New Jersey		11,100	11,000	10,800	10,600	10,875
New York		16,500	14,500	15,200	15,000	15,300
Other States		<u>71,100</u>	<u>70,700</u>	<u>70,300</u>	<u>68,000</u>	<u>70,025</u>
Total	189,388	183,100	180,600	174,500	169,600	176,950
- Production, '000 lb. -						
California		83,500	133,600	106,500	92,200	103,950
Florida		420,000	490,100	526,600	510,700	486,850
Michigan		87,600	85,400	78,100	61,700	78,200
New Jersey		77,700	71,500	75,600	77,400	75,550
New York		107,300	94,300	108,000	116,500	106,525
Other States		<u>478,100</u>	<u>441,800</u>	<u>468,500</u>	<u>441,500</u>	<u>457,475</u>
Total	1,283,820	1,254,200	1,316,700	1,363,300	1,300,000	1,308,550
- Average Yield, lb. -						
California		5,839	8,675	7,007	7,557	7,282
Florida		7,229	8,629	10,346	9,746	8,925
Michigan		7,300	7,000	6,455	5,412	6,558
New Jersey		7,000	6,500	7,000	7,302	6,947
New York		6,503	6,503	7,105	7,767	6,962
Other States		<u>6,724</u>	<u>6,249</u>	<u>6,664</u>	<u>6,493</u>	<u>6,533</u>
Total	6,779	6,850	7,291	7,813	7,665	7,395

Appendix Table 13b (concl.)

Sweet Corn: Fresh Market Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, United
States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Farm Value, \$'000 -						
California		4,995	7,415	7,729	8,599	7,185
Florida		27,939	31,681	37,519	38,336	33,869
Michigan		4,030	3,553	4,178	4,841	4,151
New Jersey		4,134	4,883	5,224	6,757	5,250
New York		4,603	5,790	6,447	7,746	6,147
Other States		<u>27,543</u>	<u>29,303</u>	<u>31,509</u>	<u>35,661</u>	<u>31,004</u>
Total	64,946	73,244	82,625	92,606	101,940	87,604
- Farm Value, ¢ per lb. -						
California		6.0	5.6	7.3	9.3	6.9
Florida		6.7	6.5	7.1	7.5	7.0
Michigan		4.6	4.2	5.3	7.8	5.3
New Jersey		5.3	6.8	6.9	8.7	6.9
New York		4.3	6.1	6.0	6.6	5.8
Other States		5.8	6.6	6.7	8.1	6.8
Total	5.1	5.8	6.3	6.8	7.8	6.7

Source: United States Department of Agriculture.

Appendix Table 13c

Sweet Corn: Processing Market Acreage, Production, Yield
per Acre, Farm Value and Farm Value per Pound,
United States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
Idaho		21,800	21,800	26,600	27,200	24,350
Illinois		48,000	48,800	54,000	56,700	51,875
Minnesota		108,100	117,100	102,000	111,100	109,575
Oregon		35,000	39,200	40,600	41,400	39,050
Washington		28,800	28,000	38,200	39,000	33,500
Wisconsin		117,900	113,500	132,600	118,100	120,525
Other States		63,400	60,230	59,900	66,050	62,395
Total	459,342	423,000	428,630	453,900	459,550	441,270
- Production, '000 lb. -						
Idaho		243,700	269,400	283,000	305,700	275,450
Illinois		500,200	480,200	455,800	406,000	460,550
Minnesota		1,027,000	1,171,000	1,109,800	931,000	1,059,700
Oregon		448,000	549,600	597,600	598,800	548,500
Washington		304,100	297,900	459,900	467,100	382,250
Wisconsin		1,077,600	1,030,600	1,021,000	904,600	1,008,450
Other States		493,900	429,800	431,300	502,800	464,450
Total	4,212,800	4,094,500	4,228,500	4,358,400	4,116,000	4,199,350
- Average Yield, lb. -						
Idaho		11,179	12,358	10,639	11,239	11,312
Illinois		10,421	9,840	8,441	7,160	8,878
Minnesota		9,500	10,000	10,880	8,380	9,671
Oregon		12,800	14,020	14,719	14,464	14,046
Washington		10,559	10,639	12,039	11,977	11,410
Wisconsin		9,140	9,080	7,700	7,660	8,367
Other States		7,790	7,136	7,200	7,612	7,444
Total	9,171	9,680	9,865	9,602	8,957	9,517

Appendix Table 13c (concl.)

Sweet Corn: Processing Market Acreage, Production, Yield
per Acre, Farm Value and Farm Value per Pound,
United States, by States, 1966-1974

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>
- Farm Value, \$'000 -						
Idaho		3,144	3,570	3,976	8,544	4,809
Illinois		6,803	7,059	7,817	11,023	8,176
Minnesota		10,373	12,237	13,429	20,994	14,258
Oregon		6,474	8,217	11,773	22,066	12,133
Washington		4,060	4,573	8,899	17,610	8,786
Wisconsin		12,285	13,192	12,456	18,997	14,233
Other States		<u>6,457</u>	<u>5,745</u>	<u>6,378</u>	<u>12,209</u>	<u>7,697</u>
Total	51,690	49,596	54,593	64,728	111,443	70,090
- Farm Value, ¢ per lb. -						
Idaho		1.3	1.3	1.4	2.8	1.7
Illinois		1.4	1.5	1.7	2.7	1.8
Minnesota		1.0	1.0	1.2	2.3	1.3
Oregon		1.4	1.5	2.0	3.7	2.2
Washington		1.3	1.5	1.9	3.8	2.3
Wisconsin		1.1	1.3	1.2	2.1	1.4
Other States		1.3	1.3	1.5	2.4	1.7
Total	1.2	1.2	1.3	1.5	2.7	1.7

Source: United States Department of Agriculture.

Sweet Corn: Dates of Application and Removal of the Seasonal, Specific Duty, by Tariff Region, 1966-1975

Year (a)	Maritime Provinces			(b) Central Canada			(c) Western Canada		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	July 20	Sept. 14	56	July 12	Sept. 6	56	July 12	Oct. 3	83
1967	July 28	Sept. 22	56	July 12	Sept. 6	56	July 20	Oct. 12	84
1968	July 31	Sept. 25	56	July 5	Aug. 30	56	July 11	Sept. 5	56
1969	Aug. 8	Oct. 10	63	July 11	Oct. 3	84	July 9	Sept. 30	83
1970	July 31	Oct. 15	76	July 7	Sept. 28	83	July 16	Oct. 7	83
1971	Aug. 5	Oct. 7	63	July 9	Sept. 30	83	July 20	Oct. 11	83
1972	Aug. 9	Nov. 1	84	July 14	Oct. 6	84	July 25	Oct. 17	84
1973	Aug. 3	Oct. 26	84	July 24	Oct. 16	84	July 24	Oct. 16	84
1974	Aug. 16	Nov. 8	84	July 18	Oct. 10	84	Aug. 13	Nov. 5	84
1975	July 29	Oct. 20	83	July 15	Oct. 3	80	-	-	-

(a) Government fiscal year commencing April 1st; ending March 31st of following year.
 (b) Includes Quebec and Ontario east of Thunder Bay, Ontario.
 (c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Sweet Corn: Dutiable Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Imports			Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non-Dutiable '000 lb.	Dutiable '000 lb.			
1966	21,253	1	21,252	5.4	1.5	27.8
1967	18,747	105	18,642	6.2	1.5	24.2
1968	19,134	17,212	1,922	6.0	1.5	25.0
1969	24,785	21,722	3,063	5.1	1.5	29.4
1970	21,026	20,370	655	6.0	1.5	25.0
Average 1966-70	20,989	11,882	9,107	5.8	1.5	25.9
1971	20,805	19,508	1,297	6.2	1.5	24.2
1972	28,462	26,690	1,772	6.2	1.5	24.2
1973	30,386	28,836	1,550	6.7	1.5	22.4
1974	31,980	29,503	2,477	8.5	1.5	17.6
1975	32,883	32,549	333	9.4	1.5	16.0
Average 1971-75	28,903	27,417	1,486	7.2	1.5	20.8

Source: Statistics Canada.

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CUCUMBERS

The cucumber (Cucumis sativus) belongs to the gourd family (Cucurbitaceae), and as such is related to such plants as squashes and melons. The cucumber originated in north-west India, where it has been cultivated for at least 3,000 years, its cultivation subsequently spreading into China and later into Europe. Most modern varieties in use in North America have gradually evolved from the European types, either as selections from direct importations, or as the result of planned or natural hybridization.

Cucumbers may be classified into varieties based on their type of fruit and the normal end-use of their fruit. First, there are the field-grown slicing or table varieties which have white spines and a long-lasting green colour and are of fairly large size when mature, weighing about 1 pound when picked. Second, there are the much smaller field-grown pickling varieties with black or white spines. Third, there are the forcing or greenhouse varieties. All the above varieties of cucumbers contain seeds. The fourth group comprises the English or European seedless varieties, developed especially for greenhouse culture at relatively low temperatures, without pollination, often 20 inches or more in length. This last group is becoming increasingly popular for greenhouse cultivation in Canada because of its better quality, easier digestion and higher market value than the seeded types.

The cucumber is a warm season crop. It is susceptible to frost and wilts under extreme heat. It is best adapted to climates with average temperatures during the growing season of 18° to 20°C, without extremes of heat or cold. Cucumber seeds seldom germinate when the temperature is below 16°C. Depending on variety, the growing season lasts from 50 to 90 days. The bulk of Canadian field-grown cucumbers is harvested in July, August, and September.

The cucumber plant is adaptable to a wide range of fertile soils. Cucumbers have been successfully grown on soil types ranging from clay loams through muck soils to somewhat light sands. From the point of view of yield per acre, which is important for processing cucumbers, the crop usually does better on heavier soils - loams and clay loams - which have better moisture holding capabilities. But where the crops are intended for early market, as with many fresh market cucumbers, lighter soils are preferred. An abundant supply of organic matter is desirable, as is rotation each year with plants not belonging to the gourd family, especially legume crops.

Cucumbers are one of the major vegetable crops grown in Canada. Annual average per capita consumption increased between the periods 1961-65 and 1966-70 from 7.0 to 8.9 pounds; for the 1971-74 period it was 8.8 pounds. Consumption of cucumbers in processed forms has increased more rapidly than fresh market consumption.

Immature cucumbers, used for pickling, are called gherkins. There is a related species, (C. Anguria), the West Indian gherkin, which is also used in pickles. For the purposes of the Canadian Customs Tariff, both of these are considered to be cucumbers and, to the extent that they are used in Canada, they are reflected in the statistics that follow. The figures do not, however, include the squirting cucumber (Ecballium elabarium), only used medicinally.

GROWING, HARVESTING AND MARKETING

Processing Cucumbers

For processing cucumbers, the usual method of planting is by drilling the seed into rows 4 to 6 feet apart. Field seeding should not commence until all danger of frost is past. The young plants are subsequently thinned to a spacing of 6 to 12 inches between plants in the rows.

Mechanical and/or chemical weed control is essential. To keep the soil loose and free from weeds, cucumbers should be cultivated from the time the plants break through the ground until the spreading of the vines makes further working impracticable. After the vines cover the ground, it is often necessary to go through the field and pull out weeds that are gaining a foothold. Alternatively, chemicals are used for weed control. Cucumbers are subject to many pests and diseases. This means that pesticide controls are necessary in commercial-sized plantings. Pollination, particularly by bees, is essential for all seeded varieties of cucumbers. Without proper pollination, seeded variety cucumbers become deformed or miniature. In the case of seedless varieties, however, there is no need for pollination, which actually spoils the fruit. For maximum yields and high quality, cucumbers must have a generous supply of water.

Because of the large labour requirements involved, harvesting is the largest single cost item in the production of both processing and fresh market field cucumbers. Processing cucumbers have to be picked at the right size and stage of maturity to avoid losses due to oversize and overmature fruits. While machines have been developed that can harvest processing cucumbers under California conditions, suitable machines for totally mechanized harvesting have not yet been developed for Canadian conditions. Individual growers in Canada are, however, increasingly using self-propelled or tractor-drawn "harvest aids" which carry pickers along a few inches above the rows, and also move the picked cucumbers on belts into crates, which later are transported to the farmyard or packing shed. After sorting and culling, the processing cucumbers are then packed in bulk containers for immediate delivery to the processing plant.

Most of the acreage under processing cucumbers is negotiated prior to seeding, with prices for each grade of cucumber determined at that time. These negotiations are carried out by the individual grower, or as in Ontario in 1974, through a marketing board. There are probably a large number of producers, mostly with a small acreage under cucumbers, who sell their crop at harvest at prevailing prices. Harvesting consists of sorting the harvested cucumbers (since the better grades bring much higher prices), packing them into bulk containers, delivering them to the processing plant and having them graded to determine the average price per ton. Grades are affected by growing conditions, and by the skill used in harvesting and in removing culls before shipping to the processing plant.

Fresh Market Field Cucumbers

Only minor differences distinguish the growing of fresh market field cucumbers from the growing of processing cucumbers. An initial difference is that, since an important consideration in fresh market cucumbers is early maturity, lighter and warmer soils are preferred for fresh market field cucumbers. Seeding and cultivation practices are similar in both cases, unless the grower of fresh market field cucumbers wants to gain the higher prices of the late greenhouse and early field cucumber market. In the latter event, cucumber plants are started in a greenhouse and are about four weeks old when transplanted into the open field. The individual plants are covered at the start with wire-supported wax paper or plastic "frost caps" which are removed when the plants begin to flower. In harvesting, as with processing cucumbers, fresh market field cucumbers are picked at frequent intervals to avoid oversize and overmature fruits.

For marketing, fresh market field cucumbers are packed in a variety of ways, e.g., in 11-quart baskets, or in cartons containing either 2 dozen cucumbers weighing about 20 pounds or lugs containing 30 pounds of cucumbers. Packing may be done either in a field shed or in a central packing-house. The fruits are washed, sorted by size and grade, and may be waxed to reduce evaporation and shrivelling. Temperatures during storage and transportation, and ideally even up to the time of retail sale, should be in the range of 7° to 10°C, with a high relative humidity of 90 to 95 per cent. Cucumbers are a perishable vegetable which can be stored, under the most appropriate circumstances, in a marketable condition for a maximum of two weeks.

Greenhouse Cucumbers

Cucumbers are grown in greenhouses either as a spring or as a fall crop. The seeded-type cucumbers are usually grown only as a spring crop, while some of the European seedless varieties are grown both in the spring and in the fall.

Greenhouse cucumber growers plant the seeds in flats or soil blocks, in a "starting house," or small section of the greenhouse area kept warmer than the rest, in December or early January; the plants are subsequently transplanted in the greenhouse beds when they are four to five weeks old, in January or February. The spring crop is harvested mainly during the months of March to July, with the seedless varieties bearing fruit somewhat earlier than the seeded varieties. The seeded varieties are harvested when the fruit is 7 inches or more in length and weighs about 1 pound; the seedless varieties are larger and are harvested at lengths from 12 to 20 inches. Fall season seedless cucumbers are grown from August to November, and harvested mainly in October and November. Yields of greenhouse seedless cucumbers during the spring are slightly lower than those of the seeded varieties, but a premium price is usually obtainable for the larger, more easily digested and, reportedly, milder-flavoured seedless cucumbers.

The marketing of greenhouse cucumbers is similar to the marketing of fresh market field cucumbers, except that a greater proportion of greenhouse cucumbers is centrally graded and packed by grower organizations. Very few are sold directly by farmers to consumers or retailers, and most are sold by number or by size to wholesalers.

ACREAGE, PRODUCTION AND FARM VALUE OF CUCUMBERS

Total annual production of cucumbers in Canada, during 1971-74, averaged 147.0 million pounds (see Table 1a). While this output was only slightly higher than the average volume of 146.0 million pounds during 1966-70, it was up 53.4 per cent from the output of 95.9 million pounds during 1961-65. The growth in output was due entirely to greater field production, since greenhouse cucumber production remained steady between the periods 1961-65 and 1966-70, and has subsequently declined fairly sharply.

Production of all cucumbers has become more and more concentrated in Ontario and Quebec. These two central region provinces, which together produced 86.5 per cent of the total volume of production in the 1961-65 period, accounted for 91.9 per cent of the national total during 1971-74.

Production of cucumbers in Ontario rose on average by 53.8 per cent, from 68.8 million pounds during 1961-65 to 105.7 million pounds during 1971-74. Quebec's production more than doubled during the period under review, from an annual average of 14.2 million pounds during 1961-65 to 29.3 million pounds during 1971-74. Production of all cucumbers declined in the Maritimes and British Columbia, and expanded only slightly in the Prairie Provinces, where an increase in greenhouse cucumber production more than offset a decrease in field production.

The farm value of cucumber production has increased in each province, even in British Columbia and the Maritimes, where the decline in output was more than offset by higher unit farm-gate prices. For Canada as a whole, the total farm value of all cucumbers rose from an annual average of \$5.7 million during 1961-65, to \$10.6 million during 1971-74, an increase of 86.3 per cent. By 1974 total farm value had reached \$13.1 million.

Average farm-gate prices have risen substantially during the period under review. The average return to the grower for all cucumbers, (field and greenhouse, fresh market and processing), averaged 7.2 cents per pound in the period 1971-74, and 8.9 cents in 1974, compared with average returns of 5.9 and 6.3 cents per pound in 1961-65 and 1966-70, respectively. It is noteworthy that the average return per pound was lowest in Ontario and Quebec, because production of processing cucumbers, with a lower average return, was most important and because the production of relatively expensive greenhouse cucumbers was of less significance in these than in other provinces.

Field Cucumbers

The total acreage of field cucumbers declined slightly between the periods 1961-65 and 1971-74, after reaching a peak during 1966-70. On average, the total area under crop fell from 9,688 acres in the 1961-65 period to 9,283 acres in 1971-74, a decline of 4.2 per cent (see Table 1b). Throughout the period under review, the largest acreage of field cucumbers was in Ontario, and the second largest in Quebec. Approximately 92.0 per cent of the total Canadian acreage of all field cucumbers was concentrated in these two provinces in 1971-74. This compared with 87.3 per cent in 1961-65.

Table 1a: Cucumbers: Total Production, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Production, '000 lb. -								
Quebec	14,173	23,292	30,519	17,199	36,432	33,226	29,344	+107.0
Ontario	68,753	103,999	103,759	106,767	109,815	102,547	105,722	+ 53.8
B.C.	6,134	9,047	5,933	7,349	3,438	4,102	5,206	- 15.1
Others	6,815	9,700	6,910	6,888	6,672	6,624	6,774	- 0.6
Canada	95,875	146,039	147,121	138,203	156,357	146,499	147,045	+ 53.4
- Farm Value, \$'000 -								
Quebec	536	935	1,127	807	1,560	1,653	1,287	+140.1
Ontario	4,121	6,747	6,644	7,012	7,445	9,425	7,632	+ 85.2
B.C.	531	818	615	796	588	748	687	+ 29.4
Others	487	761	834	887	868	1,271	965	+ 98.2
Canada	5,675	9,261	9,220	9,502	10,461	13,097	10,570	+ 86.3
- Farm Value, ¢ per lb. -								
Quebec	3.8	4.0	3.7	4.7	4.3	5.0	4.4	+ 15.8
Ontario	6.0	6.5	6.4	6.6	6.8	9.2	7.2	+ 20.0
B.C.	8.7	9.0	10.4	10.8	17.1	18.2	13.2	+ 51.7
Others	7.1	7.8	12.1	12.9	13.0	19.2	14.2	+100.0
Canada	5.9	6.3	6.3	6.9	6.7	8.9	7.2	+ 22.0

Source: Statistics Canada.

While total acreage declined slightly, total production of all field cucumbers increased substantially as a consequence of marked increases in yields per acre. Total production of all field cucumbers in Canada rose from an annual average of 70.4 million pounds during 1961-65 to 127.8 million pounds during 1971-74, an increase of 81.5 per cent. All of the increase in field cucumber production took place in the central region of Ontario and Quebec, whereas field cucumber production outside this region declined. In the period 1971-74, over 94 per cent of the total production of field cucumbers took place in Ontario and Quebec.

Between the periods 1961-65 and 1971-74, the average yield per acre for Canada as a whole almost doubled, from 7,269 to 13,769 pounds. The average yields in Ontario and Quebec increased by the largest absolute and percentage amounts during this period, although yields also rose in other areas.

Table 1b: Cucumbers: Field, Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes	466	500	160	210	210	200	195	- 58.2
Quebec	2,484	2,736	2,960	2,920	2,980	3,110	2,993	+ 20.5
Ontario	5,974	5,904	5,670	4,970	5,920	5,630	5,547	- 7.1
Prairies	398	380	270	260	220	200	238	- 40.2
B.C.	366	484	350	340	310	240	310	- 15.3
Canada	9,688	10,004	9,410	8,700	9,640	9,380	9,283	- 4.2
- Production, '000 lb. -								
Maritimes	3,481	5,124	1,802	2,007	2,067	1,447	1,831	- 47.4
Quebec	13,941	23,132	30,488	16,936	36,058	32,792	29,069	+108.5
Ontario	46,592	82,774	89,384	92,682 ^(a)	93,879	89,583	91,382	+ 96.1
Prairies	2,106	2,781	1,989	1,690	1,928	1,211	1,705	- 19.0
B.C.	4,301	6,979	4,593	5,636	2,418	2,698	3,836	- 10.8
Canada	70,421	120,791	128,256	118,951	136,350	127,731	127,822	+ 81.5
- Average Yield, lb. -								
Maritimes	7,470	10,248	11,263	9,557	9,843	7,235	9,390	+ 25.7
Quebec	5,612	8,455	10,300	5,800	12,100	10,544	9,712	+ 73.1
Ontario	7,799	14,020	15,764	18,648 ^(a)	15,858	15,912	16,474	+111.2
Prairies	5,291	7,318	7,367	6,500	8,764	6,055	7,164	+ 35.4
B.C.	11,751	14,419	13,123	16,576	7,800	11,242	12,374	+ 5.3
Canada	7,269	12,074	13,630	11,373	14,144	13,617	13,769	+ 89.4
- Farm Value, \$'000 -								
Maritimes	196	276	118	136	155	122	133	- 32.1
Quebec	522	922	1,122	779	1,514	1,586	1,250	+139.5
Ontario	1,647	3,914	4,069	4,481 ^(a)	4,117	6,052	4,680	+184.2
Prairies	110	188	179	169	174	182	176	+ 60.0
B.C.	211	390	285	339	273	288	296	+ 40.3
Canada	2,685	5,691	5,773	5,904	6,233	8,230	6,535	+143.4
- Farm Value, ¢ per lb. -								
Maritimes	5.6	5.4	6.5	6.8	7.5	8.4	7.3	+ 30.4
Quebec	3.7	4.0	3.7	4.6	4.2	4.8	4.3	+ 16.2
Ontario	3.5	4.7	4.6	4.8	4.4	6.8	5.1	+ 45.7
Prairies	5.2	6.8	9.0	10.0	9.0	15.0	10.3	+ 98.1
B.C.	4.9	5.6	6.2	6.0	11.3	10.7	7.7	+ 57.1
Canada	3.8	4.7	4.5	5.0	4.6	6.4	5.1	+ 34.2

(a) Tariff Board estimate.

Source: Statistics Canada.

Table 1c: Cucumbers: Greenhouse, Production, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Production, '000 lb. -								
Quebec	232	160	31	263	374	434	275	+ 18.5
Ontario	22,161	21,225	14,375	14,085	15,936	12,964	14,340	- 35.3
B.C.	1,833	2,068	1,340	1,713	1,020	1,404	1,369	- 25.3
Others	1,228	1,795	3,119	3,191	2,677	3,966	3,239	+163.8
Canada	25,454	25,248	18,865	19,252	20,007	18,768	19,223	- 24.5
- Farm Value, \$'000 -								
Quebec	14	13	5	28	46	67	36	+157.1
Ontario	2,474	2,833	2,575	2,531	3,328	3,373	2,952	+ 19.3
B.C.	320	428	330	457	315	460	391	+ 22.2
Others	182	296	537	582	539	967	656	+260.4
Canada	2,990	3,570	3,447	3,598	4,228	4,867	4,035	+ 34.9
- Farm Value, ¢ per lb. -								
Quebec	6.0	8.1	16.1	10.6	12.3	15.4	13.1	+118.3
Ontario	11.2	13.3	17.9	18.0	20.9	26.0	20.6	+ 83.9
B.C.	17.5	20.7	24.6	26.7	30.9	32.8	28.6	+ 63.4
Others	14.8	16.5	17.2	18.2	20.1	24.4	20.3	+ 37.2
Canada	11.7	14.1	18.3	18.7	21.1	25.9	21.0	+ 79.5

Source: Statistics Canada.

Total farm values of field cucumbers more than doubled between the periods 1961-65 and 1971-74 for Canada as a whole and increased in every province or region except the Maritimes. The total Canadian farm value of field cucumbers rose from an annual average \$2.7 million during 1961-65 to \$6.5 million during 1971-74, an increase of 143.4 per cent. As in the case of acreage and production, farm receipts from field cucumbers were concentrated in Ontario and Quebec. In the period 1971-74, the central region received \$5.9 million or 90.7 per cent of total Canadian farm receipts from field cucumbers. Of this total, Ontario growers received \$4.7 million and Quebec growers \$1.2 million.

Average farm values for all field cucumbers rose from 3.8 cents per pound during 1961-65 to 5.1 cents per pound during 1971-74. Quebec and Ontario, the only two provinces to record increases in the output of field cucumbers during these years, recorded the lowest average farm prices paid, 4.3 and 5.1 cents per pound respectively (see Table 1b).

Due to limitations imposed by confidentiality of data, a breakdown of field production between processing and fresh market cucumbers was not available with respect to separate provinces or regions, except for Ontario and British Columbia. It can be seen from this data that production of processing cucumbers greatly exceeds that of fresh market field cucumbers in Ontario while the output of these two is more nearly the same in British Columbia. Moreover, production of processing cucumbers has expanded rapidly in Ontario, as has the output of fresh market field cucumbers in that province; production of both has diminished in British Columbia, particularly that of processing cucumbers (see Appendix Table 2).

Greenhouse Cucumbers

In terms of volume or poundage, greenhouse production of cucumbers in Canada is relatively small, accounting for only 13.1 per cent of Canadian cucumber production in the 1971-74 period. However, in terms of farm value, the corresponding proportion was much larger, 38.2 per cent, because the grower of greenhouse cucumbers receives, on average, more per pound than the grower of field cucumbers.

Total production of greenhouse cucumbers in Canada declined during the period under review, from an annual average of 25.5 million pounds during 1961-65 to 19.2 million pounds during 1971-74, a decrease of 24.5 per cent (see Table 1c). Almost all of this decline occurred after 1970.

Ontario remained the principal producing area for greenhouse cucumbers throughout this period, even though the greater part of the decline in Canadian greenhouse cucumber production between the periods 1961-65 and 1971-74 took place in that province. By the 1971-74 period, Ontario's production averaged 14.3 million pounds or 74.6 per cent of total Canadian production.

Among areas outside Ontario, greenhouse production in British Columbia declined from an annual average of 1.8 million pounds during 1961-65 to 1.4 million pounds during 1971-74. Greenhouse production in the rest of Canada combined, increased during this period from 1.4 million pounds to 3.5 million pounds.

Despite the decline in the volume of greenhouse cucumber production, the total farm value of greenhouse cucumbers increased from an annual average of \$3.0 million during 1961-65 to \$4.0 million during 1971-74, and to \$4.9 million in 1974, due to sharp increases in the average farm value per pound of this product. Average returns per pound to the grower of greenhouse cucumbers, for Canada as a whole, rose from 11.7 cents per pound during 1961-65 to 21.0 cents per pound in the 1971-74 period and 25.9 cents per pound in 1974. Average returns per pound rose in each province or region, but they differed substantially from one area to another in 1974. For instance, the average farm value in Quebec was 15.4 cents per pound while it was in excess of 20 cents per pound in the Maritimes, Ontario, and British Columbia.

SUPPLY AND DISPOSITION

Information respecting the supply and disposition of cucumbers is given in Table 2. Certain supply and disposition ratios are in Appendix Table 3. The available data are somewhat incomplete in that figures for exported fresh cucumbers and imported cucumber pickles are available only with respect to trade with the United States. No data are available with reference to any possible exports of semi-processed cucumbers or to exports or imports of preserved cucumbers in such products as mixed pickles. Although the discussion which follows takes no account of these gaps in information, it is believed that they do not seriously undermine the validity of the analysis.

Total consumption of cucumbers in Canada has increased substantially in recent years, rising from an annual average of 132.7 million pounds in 1961-65 to 193.5 million pounds in 1971-74. The growth in the volume of consumption, amounting to 60.7 million pounds or almost 46 per cent, may be compared with a corresponding growth of 10.1 million pounds (from 38.0 to 48.1 million pounds) or 27 per cent, on the import side. Evidently the major part both of the market expansion and of the total market has been supplied by Canadian producers.

Put in a slightly different way, while Canadian production of cucumbers amounted to 72.2 per cent of total domestic disappearance in the period 1961-65, by 1971-74 this proportion had risen to 76.0 per cent. However, as measured in the above terms, Canada's degree of self-sufficiency, at 79.0 per cent, was highest during 1966-70. Between this period and the period 1971-74 domestic production increased by less than 1 per cent, while imports of cucumbers in all forms increased by 16.7 per cent. Much of this growing dependency upon foreign sources of supply would appear to have been associated with the concomitant decline in greenhouse production.

Growth in the domestic consumption of cucumbers has been more in cucumbers for processing than cucumbers for the fresh market. In quantitative terms, consumption of processed cucumbers increased by some 61 per cent between the periods 1961-65 and 1971-74, this being more than twice the corresponding rate of increase with respect to fresh market cucumbers. Thus, while cucumbers consumed in processed form accounted for 50.7 per cent of total domestic disappearance in the period 1961-65, by 1971-74 they were accounting for 56.0 per cent. However, contrary to the situation applying to most other vegetables, whereby the major gains on the processing side have been recorded by imports, Canadian producers have more than held their own with respect to the market for processing cucumbers. Indeed, while Canadian production of processing cucumbers approximately doubled between the periods 1961-65 and 1971-74, imports of cucumbers destined for the processing and processed markets halved. Domestic producers supplied 100.5 million pounds, or 92.7 per cent, of the 108.4 million pounds of cucumbers consumed in processed form in Canada in the period 1971-74.

Table 2: Cucumbers: Supply and Disposition, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb. -				
Total Production	95,875	146,039	147,121	138,203	156,357	146,499	147,045	+ 53.4
Field	70,421	120,791	128,256	118,951	136,350	127,731	127,822	+ 81.5
Greenhouse	25,454	25,248	18,865	19,252	20,007	18,768	19,223	- 24.5
Total Imports	37,957	41,180	36,833	48,611	50,933	55,918	48,074	+ 26.7
Fresh	31,162	36,325	35,476	42,766	44,229	50,100	43,143	+ 38.4
Preserved, not canned	..	1,629 (a)	1,097	2,288	1,514	2,349	1,812	..
Pickles (b)	6,795	3,226	260	3,557	5,190	3,469	3,119	- 54.1
Total Supply Available	133,832	187,219	183,954	186,814	207,290	202,417	195,119	+ 45.8
Available for processing								
or Imported processed	67,251	108,955	102,357	107,345	120,704	103,318	108,431	+ 61.2
From domestic production	49,900	93,600 (c)	98,000 (c)	98,000 (c)	112,000 (c)	94,000 (c)	100,500 (c)	+101.4
Imported fresh	10,556	10,500 (a)	3,000	3,500	2,000	3,500	3,000	- 71.6
Imported semi-processed	..	1,629	1,097	2,288	1,514	2,349	1,812	..
Imported processed	6,795	3,226	260	3,557	5,190	3,469	3,119	- 54.1
Available for fresh market								
From domestic production	66,581	78,264	81,597	79,469	86,586	99,099	86,688	+ 30.2
Imported	45,975	52,439	49,121	40,203	44,357	52,499	46,545	+ 1.2
	20,606	25,825	32,476	39,266	42,229	46,600	40,143	+ 94.8

Table 2: Cucumbers: Supply and Disposition, Canada, 1961-1974 (concl.)

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb. -				
Total Exports Fresh (d)	1,098	2,312	1,544	2,887	1,122	1,085	1,660	+ 51.2
Total Domestic Disappearance	132,734	184,907	182,410	183,927	206,168	201,332	193,459	+ 45.7
Consumed in processed form	67,251	108,955	102,357	107,345	120,704	103,318	108,431	+ 61.2
From domestic production	49,900	93,600	98,000	98,000	112,000	94,000	100,500	+101.4
From imports	10,556	12,129	4,097	5,788	3,514	5,849	4,812	- 54.4
Imported processed	6,795	3,226	260	3,557	5,190	3,469	3,119	- 54.1
Fresh market consumption	65,483	75,952	80,053	76,582	85,464	98,014	85,028	+ 29.8
From domestic production	44,877	50,127	47,577	37,316	43,235	51,414	44,885	*
Imported	20,606	25,825	32,476	39,266	42,229	46,600	40,143	+ 94.8

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(a) Four-year average, omitting 1966. Prior to 1967 included with "Vegetables, Dried Preserved, Not Canned, n.e.s."
 (b) U.S. exports to Canada.
 (c) Tariff Board estimate.
 (d) U.S. imports from Canada.

Source: Derived from Statistics Canada and United States data.

Imports of fresh cucumbers for processing appear to have declined sharply, from an annual average of 10.6 million pounds during 1961-65 to 3.0 million pounds during 1971-74. At the same time, imports of already processed or semi-processed cucumbers in fresh equivalent weight, apparently changed little in volume terms. In the period 1971-74, an annual average of 1.8 million pounds of semi-processed cucumbers and 3.1 million pounds of cucumber pickles were imported. In total, these accounted for 2.5 per cent by weight of all domestic cucumber consumption.

Fresh market cucumber imports have increased most, supplying virtually all the 30 per cent increase in consumption recorded between the periods 1961-65 and 1971-74. During the latter period, fresh market imports were averaging 40.1 million pounds per year and were accounting for almost 48 per cent of total fresh market consumption. Canadian production for the domestic fresh market, at 44.9 million pounds, was virtually unchanged from what it had been in the 1961-65 period. However, if the figures for domestic production are adjusted to exclude the output of greenhouse cucumbers (which declined from 25.5 to 19.2 million pounds per year during the period in question), it appears that field production for the fresh market expanded from an annual average of 19.4 million pounds in the period 1961-65 to 25.7 million pounds in 1971-74, which in proportionate terms represents an increase of almost exactly one-third. Further, since during the aforementioned period greenhouse farmers were effectively doubling their production of tomatoes, it remains an open question as to whether the decline in the output of greenhouse cucumbers was basically a grower reaction to lower-priced competing cucumber imports or a switch to tomatoes.

Data respecting the monthly supply of domestic cucumbers on the Canadian fresh market are presented in Appendix Table 4. These figures indicate that supplies are available in all months of the year but that quantities in January and December are extremely limited. Shipments of domestic cucumbers are, moreover, also very small during November and February, and even during October and March locally grown supplies are still well below the level of other months. The bulk of domestic shipments occur in July, August, and September, when fresh field cucumbers are available. It is probable that greenhouse production accounts for virtually the entire supply of home-grown cucumbers during the other nine months of the year.

When domestic supplies, from either field or greenhouse production are practically not available, as during the months November to February, Canadian consumers are almost entirely dependent on imports. During the months October, March, April, May, and June, when domestic supplies consist almost exclusively of greenhouse cucumbers, imports comprised an average of 48.1 per cent of total fresh market disappearances for the period 1971-74. This percentage was well above the corresponding one for the periods 1961-65 and 1966-70, 29.1 per cent and 36.0 per cent respectively; imports increased their share of a growing market during these months as Canadian greenhouse production of cucumbers declined. During the remaining three months of the year, July-September, the period when consumption is relatively greatest and most domestic supplies are the relatively cheaper field cucumbers, the level of import penetration was lowest, an average of 17.4 per cent for the three months

for the four years 1971 to 1974. Even though the Canadian output of field cucumbers for the fresh market has increased since 1961-65, imports have increased more rapidly, expanding their share of Canadian consumption of fresh market cucumbers during the months July-September from 10.0 per cent in 1961-65.

The regional distribution of fresh market cucumber imports is indicated in Appendix Table 7. Measured in per capita terms, these imports have been greatest in relation to western Canada and the Atlantic Provinces, which accounted for 28.8 per cent and 9.1 per cent respectively of the pertinent yearly average total of 43.1 million pounds in the 1971-74 period. The significantly lower per capita figure with respect to imports of fresh market cucumbers into the central provinces is hardly surprising in view of the heavy concentration of cucumber production (91.9 per cent of the national total, by volume) in Ontario and Quebec. Accompanying the increasing concentration of the industry in these provinces between the periods 1966-70 and 1971-74 was a negligible (3.8 per cent) growth of fresh market imports into the central region. By contrast, imports of fresh market cucumbers into western Canada and the Atlantic Provinces increased by 65.2 per cent and 30.7 per cent respectively. Put another way, of the average increase of 6.8 million pounds of fresh market cucumbers imported into Canada between the periods 1966-70 and 1971-74, some 71.9 per cent went to British Columbia and the Prairie Provinces while a further 13.6 per cent went to the Atlantic region, only 14.5 per cent was shipped to the major production and consumption areas of Ontario and Quebec.

IMPORTS

Appendix Table 6 sets forth imports of fresh cucumbers, including those for the fresh market and for processing, by countries of origin. The major supplier has been the United States, which provided, on average, 29.5 million pounds per year (81.2 per cent of the total) during the years 1966-70 and 32.1 million pounds (71.3 per cent of the total) during 1971-75. Mexico's share of total imports increased from 15.4 per cent to 27.3 per cent over the same period, and would have been greater except for a sharp decline in 1975. Other sources include the Bahamas and the Canary Islands.

The sources of fresh market imports into various regions of the country are further set out, for the years 1972 to 1974, in Appendix Table 9. This table shows that Florida provided nearly half the imports from the United States, with significant amounts coming from North and South Carolina, California, Texas, and Virginia. Florida was the major supplier to the Atlantic region with Virginia a distant second. Florida and Mexico each supplied slightly more than one-third of the imports into the central region, with about one-sixth coming from the Carolinas. Mexico supplied more than one-half of the imports into western Canada, with significant amounts also coming from California and Texas. The sources of supply suggest that imports are primarily field, not greenhouse, cucumbers.

EXPORTS

Canada exports only a small proportion of its output of fresh cucumbers. The only available data on cucumber exports relate to fresh shipments to the United States, derived from United States import statistics. These shipments averaged 1.1 million pounds per year during 1961-65; they subsequently rose to an annual average of 2.3 million pounds in the 1966-70 period and fell to 1.7 million pounds during 1971-74, at which time they accounted for 1.1 per cent of total domestic production. In 1975, such exports totalled 0.4 million pounds.

United States import data for recent years show more than one-third of incoming cucumber shipments from Canada taking place in August. Other months with above-average shipments have been September, in the latter part of the Canadian field production season, and April, when greenhouse produce would have been available.

PRICES

Farm-gate prices, or farm values, for field cucumbers and greenhouse cucumbers are given, on a regional basis, in Tables 1b and 1c. For field cucumbers, the national average during the years 1971-74 was 5.1 cents per pound, ranging from 4.3 cents in Quebec and 5.1 cents in Ontario to 7.7 cents in British Columbia and 10.3 cents in the Prairie Provinces. Returns to growers for greenhouse cucumbers are much higher than those for field cucumbers, as, of course, costs of production with respect to the former also are higher; the national average return during the years 1971-74 was 21.0 cents with provincial averages ranging from 13.1 cents in Quebec to 28.6 cents in British Columbia.

Separate figures for prices of field cucumbers destined for the fresh market and those for processing are available only for the provinces of Ontario and British Columbia. These figures are given in Table 3 and show that, in Ontario, fresh market cucumbers returned an average of 1 to 2 cents per pound more to the grower than processing cucumbers and that this difference in British Columbia, involving much smaller quantities, was considerably larger.

The average price per pound received for processing cucumbers covers a wide range of prices for different grades. In Ontario in 1970, for example, when the overall farm-gate prices for processing cucumbers was 4.0 cents per pound, the average prices received for the six grades of cucumbers marketed by growers in Essex and Kent counties, who cooperated in a study by the Ontario Ministry of Agriculture and Food, ranged from 1.5 to 10.8 cents per pound.

Table 3: Cucumbers: Field, Fresh and Processing, Average Farm Value, Ontario and British Columbia, 1966-1974

	Ontario		British Columbia	
	<u>Fresh</u>	<u>Processing</u>	<u>Fresh</u>	<u>Processing</u>
- ¢ per lb. -				
1966	4.4	4.5	7.5	3.6
1967	4.9	5.3	8.3	3.5
1968	4.9	4.8	8.4	4.0
1969	5.8	4.8	8.6	5.2
1970	5.3	4.0	8.4	4.8
Average 1966-70	5.1	4.7	8.3	4.3
1971	4.9	4.5	9.9	3.6
1972	6.0	4.7	9.4	4.3
1973	6.4	4.1	13.8	7.0
1974	8.4	6.6	12.3	8.1
Average 1971-74	6.4	5.0	11.2	4.8

Source: Provincial data.

Weekly wholesale to retail prices for fresh market cucumbers at Halifax, Montreal, Toronto, Winnipeg, and Vancouver are set out in detail in Appendix Tables 10a and 10b and are summarized in Table 4. As might be expected, the lowest prices during the year were for domestic field cucumbers during the Canadian production season; for much of the time when such cucumbers were available, there were no quotations for imported cucumbers.

The data suggest that, when domestic field cucumbers are available, wholesale prices of these cucumbers are at a level below those of the imported product, so that the volume of the latter is restricted, particularly in those market areas where local supplies are abundant. The wholesale price of Canadian greenhouse cucumbers is, generally speaking, higher than the wholesale price of imported cucumbers. This is due to the fact that production costs of greenhouse cucumbers are substantially higher than those of the imported field cucumbers. In recent years this may have contributed to lower Canadian consumption and production, even though the purchaser has been willing to pay a premium for the domestic greenhouse product. Wholesale-to-retail prices of domestic greenhouse cucumbers exceeded those of imported field-grown cucumbers by 10 cents per pound or more in Vancouver and Halifax, and by 5 to 10 cents per pound in Montreal, Toronto, and Winnipeg.

Table 4: Wholesale to Retail Selling Prices for Domestic and Imported Cucumbers in Halifax,
Montreal, Toronto, Winnipeg, and Vancouver, 1974

Month	Halifax		Montreal		Toronto		Winnipeg		Vancouver	
	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.
	- ¢ per lb. -									
Jan.	-	22.3	-	17.0	-	18.9	-	21.5	-	20.8
Feb.	-	18.8	31.9(a)	18.5	26.9(a)	21.1	-	22.9	-	19.5
Mar.	42.5(a)	20.1	24.3(a)	18.9	24.8(a)	21.5	-	22.6	-	23.6
Apr.	34.7(a)	19.6	23.2(a)	25.3	24.4(a)	18.6	27.7(a)	23.9	-	25.9
May	30.3(a)	20.8	26.2(a)	25.0	26.8(a)	20.7	31.1(a)	25.0	36.9(a)	25.9
June	30.4(a)	20.0	25.2(a)	26.1	26.5(a)	21.2	31.1(a)	23.8	37.0(a)	28.5
July	29.4	18.8	14.9	20.2	21.9	25.7	25.3(a)	23.2	24.4	30.4
Aug.	20.9	18.0	8.7	-	12.0	-	17.8	-	22.7	-
Sept.	10.6	-	7.2	15.9	9.8	14.3	15.5	-	21.3	-
Oct.	10.0	24.5	-	21.4	-	22.8	-	22.9	-	29.4
Nov.	-	16.2	-	15.8	-	14.6	-	19.3	-	26.7
Dec.	-	17.2	-	26.4	-	27.4	-	23.1	-	23.6

(a) Hothouse quotations.

Source: Appendix Tables 10a and 10b.

The Board was able to obtain information on the landed cost, i.e., the cost to the Canadian wholesaler, of imported cucumbers at Toronto, Winnipeg, and Vancouver, see Appendix Tables 11a and 11b and Table 5. An examination of this data indicates that the f.o.b. prices, freight and brokerage charges, and duties levied are extremely variable. Detailed data available to the Board make it clear that the freight and brokerage charges invariably exceed the amount of duty levied, often by a considerable amount, regardless of whether the applicable duty is the specific or the ad valorem rate. Therefore, it would appear that the freight and brokerage costs constitute an important element of protection to the Canadian producer. Taken together, freight and brokerage charges and the duty added as much as 100 per cent to the f.o.b. price, where the latter was low, and, conversely, as much as 30 per cent where the f.o.b. price was high.

Table 5: The Landed Cost of Imported Cucumbers in Toronto, Winnipeg, and Vancouver, 1972-1974

		<u>Cost</u> <u>f.o.b.</u>	<u>Freight,</u> <u>Brokerage,</u> <u>etc.</u>	<u>Duty</u>	<u>Total</u> <u>Landed</u> <u>Cost</u>
- range in ¢ per lb. -					
Toronto	1972	4.8-11.3	2.2-3.2	0.5-2.5	7.5-16.2
	1973	7.2-10.5	2.5-4.1	Free	10.4-13.6
	1974	6.4-11.4	2.3-4.2	0.6-1.1	10.7-14.8
Winnipeg	1974	7.7-20.8	3.0-6.2	Free-2.8	13.7-26.9
Vancouver	1974	6.5-17.8	2.1-5.9	Free-2.6	11.7-22.8

Source: Appendix Tables 11a and 11b.

CANADA-UNITED STATES COMPARISONS

During the years 1971-74, annual U.S. production of cucumbers averaged 1,612.2 million pounds, about 11 times the Canadian average. Of this total, which comprised 447.2 million pounds for the fresh market and 1,165.0 million pounds for processing, less than 1 per cent was exported, almost entirely to Canada. U.S. shipments to the domestic market, at 1,596.5 million pounds, supplied 90.3 per cent of U.S. consumption. Imports averaged 171.8 million pounds, of which 92 per cent, or 158.0 million pounds, came from Mexico.

Cucumbers are produced in almost all states of the United States. Some details are given in Appendix Tables 12a, 12b, and 12c. The largest individual producing states are Michigan, California, North Carolina, and Florida. As the production season in Michigan is the same as in Ontario, the other states are the major suppliers to the Canadian market during the months when only domestic greenhouse production is available.

Average U.S. yields per acre in the 1971-74 period were 9,600 pounds for fresh market produce and 9,100 pounds for processing cucumbers. The overall average of 9,200 pounds compares to the Canadian average of 13,800 pounds. Yields in the principal producing areas are compared in Table 6, as are average farm values. The yields in the principal growing areas in Canada would appear to equal or to exceed yields in the main producing areas of the United States, with the exception of California.

Table 6: Cucumbers, Fresh and Processing: Average Yields per Acre and Farm Values, Principal Growing Areas, Canada and the United States, 1971-74

Province or State	Average Yield per Acre			Average Farm Values		
	Fresh	Processing	All	Fresh	Processing	All
	- lb. -			- ¢/lb. -		
Canada	..	..	13,769	..	..	5.1
Ontario	17,250	16,371	16,474	6.4	5.0	5.1
Quebec	..	..	9,712	..	..	4.3
British Columbia	11,884	12,822	12,374	11.2	4.8	7.7
United States	9,632	9,060	9,212	8.9	5.2	6.2
Michigan	6,513	7,746	7,658	8.8	4.9	5.2
California	24,858	24,167	24,409	8.7	5.0	6.4
North Carolina	7,113	5,513	5,771	8.3	5.6	6.2
Florida	11,546	..	..	8.8	..	..

Source: Table 1b, Appendix Tables 2, 12a, 12b and 12c.

Average returns to the grower for fresh market and processing cucumbers during 1971-74 were lower in the principal growing areas in Canada than in those in the United States. However, in 1974, the farm-gate prices, in Ontario and British Columbia, at 6.6 and 8.1 cents respectively, exceeded those in California, 6.2 cents, and Michigan, 6.3 cents.

The Board has only limited information respecting comparative costs of production. Such details as are available are given in Tables 7 and 8 for fresh market cucumbers and for processing cucumbers respectively. Table 7 indicates that, with respect to fresh market cucumbers, costs in Ontario are possibly lower than in Florida, especially when the effects of inflation on Florida costs since 1972-73 are taken into account. However, the Florida cost per pound is probably overstated in that the actual average yield in that state, in the two years in question was 11,521 pounds, which would probably have resulted in a lower cost per pound than that indicated in Table 7. The Ontario costs for 1974 are based on a yield somewhat higher than the provincial average. The yield used for British Columbia is very much larger than the provincial average, so that, with similar costs, the average cost per pound on the basis of the average actual yield would be considerably higher.

Table 7: Cucumbers, Fresh Market: Field Production Costs in Florida, U.S.A., compared with Production Costs in Ontario and British Columbia

	<u>Florida</u> 1972-73	<u>Ontario</u> 1974	<u>British</u> <u>Columbia</u> 1974
Yield per acre (lb.)	8,900	17,000	28,000
		- \$ -	
Pre-harvest costs	554	622	1,035
Harvest and marketing costs	464	985	1,824
Land charges	21	102	298
Other overhead			257
All costs per acre	1,039	1,709	3,414
		- ¢ -	
All costs per lb.	11.7	10.0	12.2

Source: Background paper prepared by G.A. Fisher for the Tariff Board, September 1974.

The estimated cost of producing processing cucumbers presented in Table 8 is based on yields well above the average achieved by all growers in each of the two areas covered. Based on the average yields, the costs would be somewhat higher than stated, with Ohio perhaps having an advantage of approximately 1 cent per pound.

Table 8: Cucumbers for Processing: Comparison of Production Costs, Ontario and Ohio, 1974

	<u>Ontario</u>	<u>Ohio</u>
Yield per acre (lb.)	21,280	18,740
	- \$ -	
Pre-harvest costs	191.92	145.62
Harvesting and marketing costs	985.01	781.56
Land charges	102.82	75.00
Other costs	3.72	13.00
Total costs per acre	1,283.47	1,015.18
	- ¢ -	
Costs per lb.	6.03	5.42

Source: Op. cit.

Information regarding costs in the greenhouse industry, together with such comparisons as are available, is given in the section of this report dealing with tomatoes.

It was found that the cost of producing a pound of greenhouse cucumbers had risen from 6.3 cents in 1963-66 to 9.7 cents in 1973 and further to an estimated 13.2 cents in 1975. Average prices - for greenhouse cucumbers delivered at the packing plant also increased, from 9.3 cents in 1963-66 to 17.7 cents in 1973. However, the average price dropped to 17.5 cents in 1975.

In other words, from the mid sixties to 1973, greenhouse cucumber producers recovered higher production costs fully through higher prices, and the net return to the grower for labour and management increased from 3.0 cents per pound to 8.0 cents per pound. However, this was not the case after 1973, when the net return dropped to 4.3 cents per pound.

TARIFF CONSIDERATIONS

Fresh cucumbers are classified under tariff items 8711-1 and 8712-1 as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
8711-1 Cucumbers when imported by manufacturers for use in the manufacture of pickles or preserves	Free	10 p.c.	20 p.c.
8712-1 Cucumbers, n.o.p. per pound	Free	2½ cts. or 10 p.c.	2½ cts. or 10 p.c.

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 22 weeks which may be divided into two separate periods, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

These two tariff items, both of which are bound under GATT, were introduced into the Customs Tariff in their present form in 1959. Prior to that date, all fresh cucumbers were dutiable under a single item. The rates of duty applicable to cucumbers since May 2, 1930 are given in the following table.

Table 9: Cucumbers, Fresh: Rates of Duty, for Selected Periods

<u>Effective Date</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>General</u>
May 2, 1930 ^(a)	Free	27½ p.c.	30 p.c. ^(b)
Jan. 1, 1936 ^(a)	Free	15 p.c.	30 p.c. ^(b)
Jan. 1, 1939 ^(a)	Free	10 p.c.	30 p.c. ^(b)
Jan. 1, 1948 ^(a)	Free	2¼ cts. ^(c) (12 weeks) or 10 p.c.	30 p.c. ^(b)
June 1, 1950	Free	2¼ cts. (12 weeks) or 10 p.c.	2¼ cts. (12 weeks) or 10 p.c.
Apr. 10, 1959			
For processing	Free	10 p.c.	20 p.c.
Other	Free	2¼ cts. (22 weeks) or 10 p.c. ^(d)	2¼ cts. (22 weeks) or 10 p.c. ^(d)

(a) The General Tariff applied to imports from the United States until December 31, 1935 and to imports from Mexico until February 8, 1946.

(b) Subject to a minimum rate, from June 1 to October 31 of each year, of 1 cent per pound.

(c) Not applied until 1950.

(d) The 10 p.c. rate was temporarily suspended, and off-season free entry substituted, from February 20, 1973 to February 19, 1974.

Source: Canadian Customs Tariff.

Free entry under the British Preferential Tariff has prevailed throughout the period under review. The M.F.N. rate was reduced as a result of trade agreements with the United States and the original GATT negotiations; it was further altered in 1959, and the separate provision for cucumbers for processing introduced, as a result of GATT negotiations. The Gen. rate was reduced to the same level as the M.F.N. rate in 1950 and remains the same as the M.F.N. rate for fresh market cucumbers. Since 1959, the Gen. rate on cucumbers for processing has again been higher than the M.F.N. rate.

In so far as the Most-Favoured-Nation and General Tariff are concerned, fresh cucumbers may be made subject to the specific duty, on a regional basis, for a length of time, in any fiscal year, not exceeding 22 weeks, which may be divided into two periods. Prior to 1959, the maximum period for which the specific duty could be applied was 12 weeks, which could not be divided.

The dates of the application and the removal of the specific duty, since 1966, are set out in Appendix Table 13. In the Maritime Provinces the specific duty has invariably been applied for the maximum permitted period of 154 days. In the central region, it has usually been applied for the full period, although only 17 weeks were used in 1971 and 20½ weeks in 1975. In western Canada, the full period has only been used in 1972 and 1973 (in the latter year, a Free rate would have applied had the specific duty not been in effect, because of the temporary suspension of the off-season duty) and in 1975. This is also the only region where split periods have been used. While the two seasons overlap, the dates suggest that the specific duty was introduced in that region to cover the peak of the spring greenhouse season, then removed until domestic field cucumbers came on to the market. In the other regions, the specific duty was also generally introduced to cover part of the spring greenhouse crop and remained in effect into the field crop season. Unloads data published by Agriculture Canada indicate that domestic cucumbers are available in negligible quantities in November, December, January, and February, and are small in March and October. Nonetheless, there are probably about 30 weeks in each year when domestic production, either greenhouse or field, forms a significant part of the supply, a somewhat longer period than the 22 weeks for which the specific duty can at present be applied. Field cucumbers are available for a period of 12 weeks and greenhouse cucumbers in significant quantities for about 18 weeks.

The bulk of the imports of cucumbers, coming from the United States and Mexico, are dutiable. Cucumbers imported free of duty formed a significant part of total supply only from February 20, 1973 to February 19, 1974, when free entry was substituted for the 10 p.c. off-season rate. However, there are imports, free of duty, under the British Preferential Tariff coming from such Commonwealth areas as the Bahamas and Belize, which supplied more than 2 per cent of the imports in 1974 and 1.3 per cent during the period 1971-75.

The ad valorem equivalent of the specific duty on cucumbers, n.o.p., primarily field cucumbers for the fresh market, is shown in Appendix Table 14. It can be seen that it has dropped in recent years. The Board's calculations indicated that from 1966 to 1972 the ad valorem equivalent ranged between 25 and 30 per cent, but with increased prices for imports, it dropped to 22.7 per cent in 1973 and 21.0 per cent in 1974. According to The Canadian Horticultural Council, the seasonal duties levied in 1935 had an ad valorem equivalent of 96.8 per cent, in 1939 of 40.5 per cent, in 1947 of 28.9 per cent, in 1954 of 44.9 per cent, and in 1956 of 38.6 per cent.

The United States applies specific duties to cucumbers all year. Under Column 1, the equivalent to the M.F.N. rate in the Canadian tariff schedule, the lowest rate is applied during July and August, when domestic field cucumbers are normally plentiful and cheap; an intermediate rate is used in the winter months when domestic supplies would be at their shortest, and the highest rate is in effect for the balance of the year. The actual provision in the Tariff Schedules of the United States Annotated is as follows:

		<u>Column 1</u>	<u>Column 2</u>
Vegetables, fresh, chilled or frozen			
Cucumbers:			
135.90	If entered during the period from December 1 in any year to the last day of the following February, inclusive	2.2¢ per lb.	3¢ per lb.
135.91	If products of Cuba	1¢ per lb. ^(s)	
135.92	If entered during the period from March 1 to June 30, inclusive, or the period from September 1 to November 30, inclusive, in any year	3¢ per lb.	3¢ per lb.
135.93	If products of Cuba	2.4¢ per lb. ^(s)	
135.94	If entered during the period from July 1 to August 31, inclusive, in any year	1.5¢ per lb.	3¢ per lb.

(s) Suspended.

The Canadian Horticultural Council proposed that the separate tariff provisions for cucumbers for processing should be abolished and that all cucumbers should be dutiable under one item, with continued free entry under the British Preferential Tariff. For the Most-Favoured-Nation and General Tariff, the proposal was for a seasonal rate of 3 cents per pound, but not less than 20 per cent ad valorem, to be applicable for up to 30 weeks in any fiscal year, with free entry for the balance of the year. It further proposed that it should be permissible to divide the 30 weeks into two periods. There is now no pre-packaging duty on cucumbers and none was proposed.

The Canadian Food Processors Association advocated the continuation, without change in rates, of tariff item 8711-1, but with "cucumbers for manufacture," instead of the existing wording.

The Ontario Greenhouse Vegetable Producers' Marketing Board proposed that cucumbers, n.o.p., now classified under tariff item 8712-1 should be free of duty from October 1st to March 15th, and that for the balance of the year, cucumbers should be dutiable under all tariffs at a rate of 3 cents per pound but not less than 20 per cent ad valorem. Although that Board indicated that its proposal was intended to increase the dutiable period to 30 weeks, it would, in fact, make cucumbers dutiable for 199 days (28½ weeks).

The Canadian Importers Association Inc. drew attention to the Tariff Board's Report on Reference No. 140 - Greenhouse Vegetables, published in 1969. It noted that the Board had not recommended any increases in the duty on cucumbers and that it had recommended duty-free entry for the months of December, January, and February. The Association advocated the implementation of this recommendation.

The more general representations made by the National Farmers Union and the Consumers' Association of Canada are also relevant to cucumbers.

Apart from The Canadian Horticultural Council, which proposed the deletion of tariff item 8711-1, and the Canadian Food Processors Association, which advocated retention of the item, no specific proposals were made with respect to cucumbers for processing. The Horticultural Council's proposal was said to be designed to encourage processors to contract for their needs in Canada. The processors, on the other hand, favoured retention of the present situation where duty is levied all the year round, but at a lower rate than the seasonal specific duty now in effect. It should be noted that, on occasion, processors have obtained remissions of duty paid on cucumbers imported for processing in Canada.

With regard to fresh market cucumbers, there was general agreement that duty-free entry should be available for periods when Canadian production is not available. The suggestion of the Horticultural Council, for a maximum application period of 30 weeks, capable of being split into two periods would ensure that for at least 22 weeks in each year cucumbers would be free of duty, a longer period than that recommended by the Board in its report on Reference No. 140 and a more flexible arrangement than that suggested by the marketing agency for the Ontario greenhouse producers.

The proposal of extending the period of application of the seasonal duty from 22 weeks to 30 weeks would in fact increase the level of tariff protection for growers during the additional eight weeks with the proposed specific seasonal duty of 3 cents per pound, or, for that matter, with the existing specific duty of $2\frac{1}{4}$ cents per pound, because the current off-season rate of 10 per cent ad valorem has a specific duty equivalent, on the basis of the average value for duty of 1974 imports, of about 1 cent per pound. On the other hand, imports during a 22-week period which are currently dutiable at the off-season rate of 10 p.c. would, as proposed, in the future enter free of duty, involving a considerable saving to Canadian consumers.

The extension of the period of application of the seasonal duty would most likely provide additional protection to growers of greenhouse cucumbers. The question is whether it would be appropriate from the viewpoint of both consumer and producer interests to increase the level of protection as requested, i.e., from an estimated 1 cent per pound to 3 cents per pound for eight weeks, and from $2\frac{1}{4}$ cents to 3 cents for production marketed during the existing 22-week period of application.

Domestic greenhouse cucumbers normally compete with imported field cucumbers, whose costs of production are much lower, and which sell therefore, at the wholesale level, at substantially lower prices. It is probable that this difference in costs of production between greenhouse cucumbers and field cucumbers, imported or domestic, has widened in most recent years due to the rapid escalation in oil prices, which will have affected greenhouse operators more than farmers. Because of climatic conditions higher fuel prices have had a greater impact on Canadian greenhouse operators than U.S. operators; in any event, imported greenhouse cucumbers are not an important element in the Canadian market.

While the Canadian consumer has in the past absorbed some of the higher cost of greenhouse cucumbers because of their quality, the differential between the price of domestic greenhouse cucumbers and of imported cucumbers has widened appreciably in recent years. At the wholesale level this difference currently ranges from 5 cents to well in excess of 10 cents per pound, depending on province. It would appear that the proposed rate of duty of 3 cents per pound probably would be inadequate to enable growers to recover that part of the market lost in recent years. On the other than, to achieve that objective would require a level of tariff protection, at certain times exceeding 100 p.c.

The proposed ad valorem minimum would become effective when the f.o.b. value of imported cucumbers reached 15 cents per pound, which may occur, in some instances even now, during the 30-week period when the specific duty would be applicable. When the proposed ad valorem minimum would be the effective rate, the increase in the level of tariff protection would actually be from 10 p.c., the current off-season rate, to 20 p.c. With a specific duty of 3 cents per pound, a minimum ad valorem rate of 15 per cent would become the effective rate with a value for duty of imports of 20 cents per pound; while this value for duty may not prevail for some time, this level of protection might be considered as unrealistically low.

The extension of the current specific duty of $2\frac{1}{4}$ cents for fresh market cucumbers over the additional eight weeks of application would represent an increase in tariff protection for greenhouse operators from the current off-season rate of 10 p.c. Moreover, with a $2\frac{1}{4}$ cents per pound specific duty the proposed minimum ad valorem rate of 20 per cent would frequently be the operative rate as import values of $11\frac{1}{4}$ cents per pound are very common especially during the Canadian greenhouse production season. A minimum ad valorem rate of 15 per cent, with a specific duty of $2\frac{1}{4}$ cents, operative with a value for duty of 15 cents per pound would also become the predominant effective rate in the near future.

The proposed specific duty of 3 cents per pound would also raise the level of protection for field cucumbers for the fresh market which are currently dutiable at $2\frac{1}{4}$ cents per pound. As pointed out previously, while the ad valorem equivalent has declined, it was still 21.0 per cent on the basis of the average value for duty of all dutiable imports of all cucumbers in 1974. A specific duty of 3 cents would have an ad valorem equivalent of nearly 30 per cent which would restore the level of protection to what it was during the latter half of the 1960s.

The proposal to delete tariff item 8711-1, which provided entry for fresh processing cucumbers at an ad valorem rate of 10 per cent, and to include imports of these field cucumbers under tariff item 8712-1 at a rate of 3 cents a pound, equivalent to an ad valorem rate in excess of 30 per cent, would result in a sharp increase in the level of protection for growers of processing cucumbers for the proposed period of 30 weeks. While such imports would enter free of duty the remainder of the year, it is unlikely that significant imports of fresh cucumbers for processing would actually occur during that time, because U.S. production of processing cucumbers is concentrated in states with a production season similar to that of Canada.

The Board estimated the additional cost to Canadian consumers of raising the duty from $2\frac{1}{4}$ cents per pound or 10 p.c. to 3 cents per pound, and extending the maximum period of application from 22 weeks to 30 weeks at \$667,350 for fresh market cucumbers or an annual amount of $12\frac{1}{2}$ cents for the average family of four. The benefits to growers are estimated at \$476,750; and the remainder would accrue to the government, wholesalers and retailers. The additional income per acre of greenhouse cucumbers would be about \$7,500, an amount well in excess of the increase in heating costs in recent years, but not enough to compensate for the overall increase in total costs. The grower of field cucumbers for the fresh market would, at an average yield of 13,500 pounds per acre, benefit in the amount of \$101.25 per acre.

CONCLUSIONS

When comparisons are made between overall averages for the period 1961-65 and 1971-74 the cucumber industry in Canada appears to have prospered. Total consumption in fresh and processed form, has increased by some 45 per cent. Field production for both the fresh and the processing markets has risen, but greenhouse production has declined. The overwhelming bulk of the demand for processed cucumbers has been met from domestic production; in this area, imports have declined.

The Board noted, however, that most of the growth in Canadian production took place between the periods 1961-65 and 1966-70. Since that time, Canada's level of self-sufficiency has diminished. The increase in field production for the fresh market has little more than offset the decline in greenhouse production. Imports have not only made major inroads during the greenhouse season but have also increased their penetration of the Canadian market during the field cucumber marketing season.

The Board concludes therefore that, while there is at this time no need for raising the level of tariff protection on fresh cucumbers, a lowering of that protection would be equally undesirable.

Evidence brought before the Board indicates that the competitive position of domestic greenhouse cucumbers relative to imported field cucumbers has worsened considerably in recent years inter alia with the rapid and sharp escalation in fuel prices. The Board is of the opinion, however, that it would be unacceptable to

increase the level of protection to the extent necessary to compensate fully for this loss of market position. Consequently, the Board recommends that greenhouse growers be provided with a specific rate of seasonal protection of $2\frac{1}{4}$ cents per pound.

Because the production season of greenhouse cucumbers overlaps to a varying and unknown extent with the production season of fresh market field cucumbers the Board decided it would be inappropriate to differentiate between the tariff treatment of greenhouse and field cucumbers. The Board therefore recommends that the specific seasonal duty for fresh market field cucumbers under the Most-Favoured-Nation and General Tariff also be $2\frac{1}{4}$ cents per pound.

While the Board notes that the ad valorem equivalent of the present specific rate has declined, it was still above 20 per cent in 1974 and when applied to the cheapest imports, amounted to more than 30 per cent. Only two vegetables subject to seasonal specific duties bear a higher nominal rate. However, to prevent further erosion in the protection accorded by the specific duty to Canadian producers, the Board recommends that a minimum seasonal ad valorem rate of 15 per cent be established.

The Board concludes that it serves no useful purpose to retain the off-season duty of 10 p.c. on fresh market cucumbers under the Most-Favoured-Nation and General Tariff since imports supply practically the entire Canadian market at that time. It recommends, therefore, that a seasonal specific duty be established for a period of 30 weeks during any year ending March 31st, and that imports outside this period be duty-free.

The Board recommends that a separate provision continue to be made in the tariff for field cucumbers for processing, as per tariff item 8712-1. Imports of fresh cucumbers for processing have diminished sharply and Canadian growers currently supply nearly all of the requirements of Canadian processors. The Board, therefore, recommends that the specific rate of duty for processing cucumbers under the Most-Favoured-Nation Tariff be established at 1 cent per pound with a minimum ad valorem rate of 10 per cent. The B.P. rate would be Free and the rate under the General Tariff, 2 cents, but not less than 20 p.c. Furthermore, the Board recommends that the nomenclature of tariff item 8712-1 be changed to read "cucumbers for processing" which is more encompassing and at the same time simpler than the current wording "cucumbers when imported by manufacturers for use in the manufacture of pickles or preserves." It is also recommended that the recommended rates be applied for the entire year. Any importer, requiring processing cucumbers when Canadian produce is not available can still apply for remission of duties.

As noted earlier, no additional duty is now applicable to imports of pre-packaged cucumbers and none was requested. None is recommended.

RECOMMENDATIONS

The Board recommends that present tariff items 8711-1 and 8712-1 be deleted from Schedule "A" and the following items be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Cucumbers, n.o.p. per pound	Free	2½ cts. but not less than 15 p.c., or Free	2½ cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 30 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or the ad valorem duty is not in effect.

Cucumbers for processing per pound	Free	1 ct. but not less than 10 p.c.	2 cts. but not less than 20 p.c.
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Cucumbers: ^(a) Acreage and Number of Farms, by
Province and Region, 1961 and 1971

	1961		1971		No. of Farms Reporting
	<u>No. of Acres</u>	<u>Acreage as % of Total</u>	<u>No. of Acres</u>	<u>Acreage as % of Total</u>	
Atlantic Region	421	5.7	172	1.7	344
Nfld.	1	*	2	*	3
P.E.I.	130	1.7	23	0.2	39
N.S.	181	2.4	103	1.0	198
N.B.	109	1.5	44	0.4	104
Central Region	5,778	77.7	8,925	89.7	4,654
Que.	2,084	28.0	2,956	29.7	1,764
Ont.	3,694	49.7	5,969	60.0	2,890
Western Region	1,235	16.6	851	8.6	661
Man.	448	6.0	162	1.6	179
Sask.	52	0.7	74	0.7	70
Alta.	368	5.0	188	1.9	139
B.C.	367	4.9	427	4.3	273
Canada ^(b)	7,434	100.0	9,948	100.0	5,660

(a) Field cucumbers only.

(b) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Appendix Table 2

Cucumbers: Field, Fresh and Processing, Acreage, Production,
Yield per Acre, Farm Value, and Farm Value
per Pound, Ontario and B.C., 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -							
Ontario							
Fresh	824 ^(a)	689	621	626	671	607	631
Processing	4,456 ^(a)	5,215	5,051	4,344	5,250	5,024	4,917
B.C.							
Fresh	140	151	162	160	145	119	147
Processing	228	336	191	182	161	118	163
- Production, '000 lb. -							
Ontario							
Fresh	10,489 ^(a)	11,940	11,261	11,282	11,179	9,818	10,885
Processing	32,039 ^(a)	70,834	78,123	81,400	82,700	79,765	80,497
B.C.							
Fresh	2,126	2,233	1,883	1,901	1,532	1,671	1,747
Processing	2,175	4,746	2,710	3,735	886	1,027	2,090
- Average Yield, lb. -							
Ontario							
Fresh	12,729 ^(a)	17,329	18,134	18,022	16,660	16,175	17,250
Processing	7,190 ^(a)	13,583	15,467	18,738	15,752	15,877	16,371
B.C.							
Fresh	15,186	14,788	11,623	11,881	10,566	14,042	11,884
Processing	9,539	14,125	14,188	20,522	5,503	8,703	12,822
- Farm Value, \$'000 -							
Ontario							
Fresh	401 ^(a)	606	553	681	717	820	693
Processing	1,056 ^(a)	3,308	3,516	3,800	3,400	5,232	3,987
B.C.							
Fresh	119	185	187	178	211	206	196
Processing	92	204	99	161	62	83	101
- Farm Value, ¢ per lb. -							
Ontario							
Fresh	3.8 ^(a)	5.1	4.9	6.0	6.4	8.4	6.4
Processing	3.3 ^(a)	4.7	4.5	4.7	4.1	6.6	5.0
B.C.							
Fresh	5.6	8.3	9.9	9.4	13.8	12.3	11.2
Processing	4.2	4.3	3.6	4.3	7.0	8.1	4.8

(a) Three year average, omitting 1963 and 1964.

Source: Provincial data.

Cucumbers: Supply and Disposition Ratios, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- per cent -								
Per Cent of Domestic Production:								
Sold for Processing	52.0	64.1	66.6	70.9	71.6	64.2	68.3	+ 31.3
Sold to Domestic Fresh Market	46.8	34.3	32.3	27.0	27.7	35.1	30.5	- 34.8
Exported	1.1	1.6	1.0	2.1	0.7	0.7	1.1	-
Total Imports as Per Cent:								
of Total Supply Available	28.4	22.0	20.0	26.0	24.6	27.6	24.6	- 14.0
of Total Domestic Disappearance	28.6	22.3	20.2	26.4	24.7	27.8	24.8	- 13.3
Imports for Fresh Consumption as Per Cent:								
of Fresh Market Availability	30.9	33.0	39.8	49.4	48.8	47.0	46.3	+ 49.8
of Fresh Exports	1,776.7	1,017.0	2,003.4	1,260.1	3,663.7	4,194.9	2,318.3	+ 30.5
of Fresh Market Consumption	31.5	34.0	40.6	51.3	49.4	47.5	47.2	+ 49.8
Processed Imports as Per Cent:								
of Consumption in Processed Form	10.1	3.0	0.3	3.3	4.3	3.4	2.9	- 71.3
of Total Domestic Disappearance	5.1	1.7	0.1	1.9	2.5	1.7	1.6	- 68.6
Per Cent of Fresh Market Consumption:								
From Domestic Production	68.5	66.0	59.4	48.7	50.6	52.5	52.8	- 22.9
From Imports	31.5	34.0	40.6	51.3	49.4	47.5	47.2	+ 49.8
Per Cent of Total Domestic Disappearance:								
Consumed in Processed Form	50.7	58.9	56.1	58.4	58.5	51.3	56.0	+ 10.5
Consumed in Fresh Form	49.3	41.1	43.9	41.6	41.5	48.7	44.0	- 10.8
Net Imports ^(a) as % of Total Domestic Disappearance	27.8	21.0	19.3	24.9	24.2	27.2	24.0	- 13.7
Production as % of Total Domestic Disappearance	72.2	79.0	80.7	75.1	75.8	72.8	76.0	+ 5.3
(a) Total imports minus total exports.								

Source: Table 2.

Appendix Table 3

Appendix Table 4

Cucumbers: Estimated Monthly Distribution of Fresh Shipments^(a)
1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
- thousand pounds -						
Jan.	-	3	-	-	-	10
Feb.	351	125	95	75	134	195
Mar.	2,105	1,203	714	1,306	1,712	1,080
Apr.	3,810	3,252	3,330	2,836	3,437	3,404
May	5,364	5,255	4,948	4,776	5,526	5,769
June	6,015	5,970	7,708	4,553	5,954	5,666
July	9,123	9,375	10,324	6,605	9,974	10,596
Aug.	14,888	10,625	9,373	9,441	10,908	12,776
Sept.	7,068	7,639	9,325	6,269	4,942	10,021
Oct.	1,353	1,274	1,570	1,306	579	1,640
Nov.	50	155	190	112	65	252
Dec.	-	11	-	37	4	5
Total	50,127	44,885	47,577	37,316	43,235	51,414

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 5

Cucumbers: Estimated Monthly Distribution of Fresh Market
Consumption, 1961-65 to 1971-74

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
- per cent - - thousand pounds - -per cent-						
Jan.	100.0	100.0	3	5,620	5,623	99.9
Feb.	91.2	86.1	125	3,773	3,898	96.8
Mar.	38.8	44.0	1,203	3,131	4,334	72.2
Apr.	10.3	22.2	3,252	2,087	5,339	39.1
May	15.2	21.2	5,255	2,328	7,583	30.7
June	24.1	33.8	5,970	4,416	10,386	42.5
July	6.2	23.4	9,375	3,773	13,148	28.7
Aug.	4.9	5.3	10,625	1,204	11,829	10.2
Sept.	24.1	8.1	7,639	843	8,482	9.9
Oct.	89.0	70.6	1,274	3,773	5,047	74.8
Nov.	98.6	98.4	155	4,576	4,731	96.7
Dec.	100.0	100.0	11	4,616	4,627	99.8
Total	31.5	34.0	44,885	40,143	85,028	47.2

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 6

Cucumbers: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Commonwealth West Indies</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -					
1966	40,517	2,595	1,600	387	45,099
1967	30,236	3,375	1,773	242	35,626
1968	21,685	3,170	131	364	25,349
1969	26,396	9,277	777	240	36,690
1970	28,567	9,475	816	3	38,860
Average 1966-70	29,480	5,578	1,019	247	36,325
1971	24,041	11,242	193	-	35,476
1972	29,508	13,123	44	90	42,766
1973	29,674	13,602	910	43	44,229
1974	35,291	13,632	1,028	149	50,100
1975	41,871	9,736	676	162	52,446
Average 1971-75	32,077	12,267	570	89	45,003

Source: Statistics Canada.

Appendix Table 7

Cucumbers: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	3,016	3,256	3,670	4,139	4,702	4,389
Nfld.	3	11	21	48	22	23
P.E.I.	156	175	138	170	180	769
N.S.	674	396	501	477	799	188
N.B.	2,182	2,674	3,011	3,445	3,702	3,410
Central Region	25,790	22,584	27,611	26,171	30,754	32,651
Que.	11,264	12,247	14,880	14,062	15,875	16,537
Ont.	14,526	10,337	12,730	12,109	14,879	16,114
Western Region	7,519	9,636	11,485	13,919	14,644	15,406
Man.	919	1,750	2,664	2,745	2,964	3,184
Sask.	1,452	1,218	1,592	2,706	2,777	2,235
Alta.	2,573	3,320	3,800	4,328	4,691	4,184
B.C.	2,576	3,348	3,429	4,140	4,212	5,804
Canada	36,325	35,476	42,766	44,229	50,100	52,446

Source: Statistics Canada.

Appendix Table 8 -

Cucumbers: Imports by Month, 1966-1975

<u>Month</u>	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	2,944	8.1	5,567	12.4	5,676	6,093	6,352	5,216
Feb.	2,200	6.1	3,977	8.8	3,066	3,703	4,960	4,541
Mar.	1,725	4.7	3,099	6.9	2,883	2,870	3,973	2,778
Apr.	1,264	3.5	2,349	5.2	1,658	2,687	2,907	3,262
May	1,618	4.5	2,879	6.4	2,590	1,781	3,199	5,050
June	4,458	12.3	5,402	12.0	5,653	5,494	4,236	7,444
July	6,175	17.0	4,554	10.1	4,083	4,073	5,962	4,370
Aug.	4,108	11.3	1,597	3.5	1,750	2,135	1,675	1,210
Sept.	2,265	6.2	1,829	4.1	1,410	1,933	2,672	2,408
Oct.	3,463	9.5	4,084	9.1	4,545	4,014	3,967	4,901
Nov.	3,061	8.4	4,697	10.4	4,531	4,959	4,951	4,956
Dec.	3,044	8.4	4,969	11.0	4,921	4,487	5,247	6,310
Total	36,325	100.0	45,003	100.0	42,766	44,229	50,100	52,446

Source: Statistics Canada.

Appendix Table 9

Cucumbers: Percentage Distribution of Fresh Market Imports,
by States of Origin, by Region, 1972-1974

	<u>Fla.</u>	<u>N.C. and S.C.</u>	<u>Calif.</u>	<u>Tex.</u>	<u>Va.</u>	<u>Other States</u>	<u>Mex.</u>	<u>Other Countries</u>
- per cent -								
<u>1972</u>								
Maritime Region	60.3	16.5	-	-	13.6	2.0	7.6	-
Central Region	34.6	18.4	0.1	0.3	4.9	5.5	36.0	0.2 ^(a)
Western Region	6.2	2.4	19.7	21.1	-	0.6	50.1	-
Canada	27.2	13.4	6.1	6.6	3.8	3.8	38.9	0.1 ^(a)
<u>1973</u>								
Maritime Region	47.4	8.9	-	-	32.5	2.0	8.0	1.2 ^(b)
Central Region	33.8	17.1	1.3	1.8	4.0	6.3	33.5	2.2 ^(c)
Western Region	5.2	1.9	19.3	12.2	0.5	4.8	56.1	* ^(d)
Canada	24.7	11.3	7.5	5.3	4.4	5.5	39.9	1.4
<u>1974</u>								
Maritime Region	63.4	5.6	0.9	-	10.6	10.8	8.0	0.6 ^(b)
Central Region	35.3	15.4	0.4	2.4	3.0	7.1	34.1	2.3 ^(b)
Western Region	11.1	2.7	18.3	13.3	0.4	1.5	52.6	-
Canada	29.1	10.7	6.2	5.8	2.6	5.5	38.6	1.5 ^(b)
<u>1972-74</u>								
Maritime Region	57.3	9.7	0.4	-	18.7	5.5	7.9	0.6
Central Region	34.6	16.9	0.6	1.5	3.9	6.4	34.6	1.6
Western Region	7.7	2.3	19.1	15.2	0.3	2.3	53.1	*
Canada	27.1	11.7	6.6	5.9	3.6	5.0	39.1	1.0

(a) Canary Islands.

(b) Bahamas.

(c) Bahamas and Canary Islands.

(d) Spain

Source: Agriculture Canada.

Appendix Table 10a

Cucumbers: Weekly Wholesale to Retail Prices at Halifax and Montreal, 1974

Week Ending	Halifax				Montreal				
	Fla.	BU. HPR.	N.S.		Mex.	N.C.	N.J.	Ont.	
	CTN.	- 50 lb. -	Field	H.H.	- ctn. bu., 50 lb. -			Field	H.H.
			-ctn. 2 doz.,					11-qt. bsk.	-2-do. ctn.,
			20 lb.-					16 lb.	20 lb.-
									50 lb.
- cents per pound -									
Jan.	4	23.0			16.8	17.3			
	11	24.2			16.8	17.3			
	18	20.5			16.8	17.0			
	25	21.6				17.0			
Feb.	1	19.2				15.0			
	8	18.0				17.0			
	15	19.0 (a)				20.5			
	22	19.0 (a)				21.5			
Mar.	1	21.8 (a)				17.5		31.9	
	8	20.0 (a)				17.3		30.0	
	15	18.0 (a)		42.5		17.3		21.9	
	22	19.2		42.5		20.3		21.3	
	29	21.4		42.5		22.0		23.8	
Apr.	5	18.5		42.5		17.8		24.4	
	12	16.8		32.5		19.5		23.2	
	19	20.0		32.5					
	26	23.0		31.3	34.5				
May	3	23.0		31.3	29.5				31.3
	10	21.5		32.5	32.0				31.3
	17	17.2		32.5	24.3				26.9
	24	21.4		27.5	21.5			20.7	26.3
	31	21.0		27.5	23.5			20.7	26.3
June	7	21.0		27.5	23.5			20.7	28.2
	14	20.0		31.3	22.0 (c)			21.7	29.4
	21	19.0		31.3	24.5 (c)			21.7	28.2
	28	20.0		31.3	30.0 (c)			24.4	26.9
July	5	20.0		31.3	27.8 (c)			18.8	20.7
	12	19.0 (b)		31.3	21.8 (c)				15.5
	19	18.0 (b)		28.8	19.5	21.8	19.5		14.7
	26	18.0 (b)		26.3	19.3	19.3	19.3	14.9	16.0

Appendix Table 10a (concl.)

Cucumbers: Weekly Wholesale to Retail Prices at Halifax and Montreal, 1974

Week Ending	Halifax				Montreal				
	Fla.	BU. HPR.	N.S.		Fla.	Mex.	N.C.	N.J.	Que.
	CTN. - 50 lb. -		Field -ctn. 2 doz., 20 lb.-	H.H.	Field 11-qt. bsk. 16 lb.			H.H. -2-doz. ctn., 20 lb.-	H.H. W/B 6 doz. 50 lb.
Aug.	2 19.0(b)		26.3		16.4			10.7	8.0
	9 18.0(b)		26.3					6.9	9.0
	16 17.0(b)		22.5						5.8
	23		22.5						4.5
	30								4.5
Sept.	6		21.3						9.5
	13		21.3						7.5
	20		20.0						
	27		12.5						
	4		10.0						
Oct.	11		10.0						
	18		10.0						
	25		10.0						
	1		10.0						
Nov.	8		10.0						
	15		10.0						
	22		29.0						
	29		20.0						
	6		18.0						
Dec.	13		17.0						
	20		15.8						
	27		15.5						
			17.8						
			15.0						
			17.5						
			25.0						
			26.5						
			36.5						

- cents per pound -

- (a) Includes quotations from Mexico.
 (b) Includes quotations from Virginia.
 (c) Includes quotations from South Carolina.
 (d) Quotations from Virginia.

Source: Agriculture Canada.

Appendix Table 10b

Cucumbers: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto			Winnipeg			Vancouver			
	Fla.	Mex. (a)		Fla.	Mex. (f)		Mex.	Cal.	B.C.	
		Field(e)	Ont. H.H.		Field	H.H.				
	- 2-doz. ctn., 20 lb. -			2-doz. ctn., 20 lb.	Ont. H.H.	Man. Field	50-lb. crt.	30-lb. ctn.	2½-doz., 30 lb.	

Appendix Table 10b (concl.)

Cucumbers: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto			Winnipeg			Vancouver			
	Fla.	Mex.	Ont. Field(e) H.H.	Fla.	Mex.	Ont. H.H.	Man. Field	Mex.	Cal.	B.C. Field H.H.
			- 2-doz. ctn., 20 lb. -							
				</						

(a) Quotations from North Carolina, June 21 to July 12 and Oct. 11 to Nov. 1.

(b) Includes quotations from South Carolina.

(c) Includes quotations from New Jersey.

(d) Quotations from South Carolina.

(e) Ontario 11-qt. bskt. (16 lb.), July 5 to Aug. 16 and Sept. 20 and Sept. 27.

(f) Quotations from Texas, June 14 to July 19 and Oct. 11 to Dec. 13.

(g) Includes quotations from Texas.

(h) Quotations from Florida.

(i) B.C. Field, 1-doz. ctn. (12 lb.).

Source: Agriculture Canada.

Imported Cucumbers: Total Landed Cost; Cost f.o.b.: Freight, Brokerage
and Other Costs; Cost of Duty; Toronto; Selected
Data by Month, 1972-1974

Month of Shipment	1972				1973				1974						
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
- cents per pound -															
January	Mexico	9.3	3.0	1.0	13.3	-	-	-	-	-	-	-	-	-	-
June	Fla.	8.0	2.6	2.5	13.1	-	-	-	-	-	-	-	-	-	-
	"	11.3	2.4	2.5	16.2	-	-	-	-	-	-	-	-	-	-
September	-	-	-	-	-	-	-	-	-	-	Calif.	11.4	2.3	1.1	14.8
October	Fla. "	4.8 5.5	2.2 2.3	0.5 0.5	7.5 8.3	Calif. -	10.5 -	2.5 -	- -	13.0 -	Calif. -	8.1 -	4.1 -	0.9 -	13.1 -
November	Calif.	4.9	2.5	0.5	7.9	Calif.	7.2	3.2	-	10.4	Fla.	6.4	3.7	0.6	10.7
	"	5.2	3.0	0.5	8.7	-	-	-	-	-	"	7.6	4.1	0.7	12.4
	"	6.2	3.2	0.6	10.0	-	-	-	-	-	"	7.6	4.2	0.7	12.5
December	Fla.	6.2	2.9	0.6	9.7	Calif.	9.5	4.1	-	13.6	-	-	-	-	-

Source: Tariff Board survey.

Appendix Table 11b

Imported Cucumbers: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Cost; Cost of Duty; Winnipeg and Vancouver; Selected Data; by Month, 1974										
Month of Shipment	Winnipeg					Vancouver				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
- cents per pound -										
January	Mex.	12.8	6.2	-	19.0	Mex.	6.5	5.2	-	11.7
February	-	-	-	-	-	Mex.	8.5	5.7	0.9	15.1
March	Mex.	12.0	6.1	1.2	19.3	Mex.	7.5	5.7	0.8	14.0
	"	13.3	4.6	1.4	19.3	"	8.4	5.8	0.8	15.0
	-	-	-	-	-	"	12.4	5.9	1.2	19.5
	-	-	-	-	-	Fla.	12.4	5.4	1.2	19.0
April	Fla.	20.8	3.9	2.1	26.8	Fla.	8.5	5.8	0.9	15.9
	"	20.5	3.6	2.8	26.9	"	13.5	5.8	1.4	20.7
	Mex.	13.3	6.1	1.4	20.8	Mex.	9.6	5.8	1.0	16.4
May	Fla.	14.3	3.7	2.8	20.8	Calif.	11.2	2.9	1.1	15.2
	Texas	14.3	3.1	1.5	18.9	Texas	9.5	4.0	2.5	16.0
	"	13.3	3.0	2.8	19.1	-	-	-	-	-
June	Texas	12.5	3.2	1.3	17.0	Calif.	12.0	2.8	1.2	16.0
	"	15.0	3.2	1.5	19.7	"	16.2	2.7	1.6	20.5
	-	-	-	-	-	"	13.3	2.8	1.3	17.4

Appendix Table 11b (concl.)

Imported Cucumbers: Total Landed Cost; Cost f.o.b.; Freight, Brokerage
and Other Cost; Cost of Duty; Winnipeg and Vancouver;
Selected Data; by Month, 1974

Month of Shipment	Winnipeg				Vancouver					
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
						- cents per pound -				
July	-	-	-	-	-	Calif.	14.2	2.7	1.4	18.3
August	-	-	-	-	-	Calif.	10.8	2.3	2.6	15.7
	-	-	-	-	-	"	12.5	2.1	2.6	17.2
October	Texas	11.3	4.6	1.2	17.1	Calif.	15.3	3.5	1.5	20.3
	Fla.	7.7	5.6	0.8	14.1	"	17.8	3.2	1.8	22.8
November	Fla.	7.7	5.2	0.8	13.7	Calif.	12.8	3.7	1.3	17.8
	-	-	-	-	-	Fla.	8.9	5.3	0.9	15.1
	-	-	-	-	-	"	9.2	5.8	0.9	15.9
December	Fla.	11.7	3.9	1.2	16.8	Fla.	10.6	5.7	1.1	17.4
	"	16.4	3.8	1.7	21.9	"	12.7	5.9	1.3	19.9
	"	17.9	4.0	1.8	23.7	-	-	-	-	-

Source: Tariff Board survey.

Appendix Table 12a

Cucumbers, Field: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by
States, 1966-1974

	Average 1966-70	1971	1972	1973	1974	Average 1971-74
- Acreage -						
California		8,700	8,400	8,300	6,900	8,075
Florida ^(a)		14,000	15,200	13,100	14,300	14,150
Michigan		26,600	27,900	28,400	29,400	28,075
North Carolina		32,500	32,400	32,800	34,200	32,975
Ohio		6,000	5,500	6,200	6,800	6,125
South Carolina		15,300	16,200	14,100	13,600	14,800
Texas		10,900	12,200	10,800	12,100	11,500
Virginia		7,700	8,000	7,800	8,900	8,100
Wisconsin		8,200	9,000	10,400	11,400	9,750
Other States ^(b)		44,250	43,190	38,120	40,300	41,465
Total	190,510	174,150	177,990	170,020	177,900	175,015
- Production, '000 lb. -						
California		184,300	205,700	201,200	197,200	197,100
Florida ^(a)		153,800	182,600	142,000	175,100	163,375
Michigan		179,300	207,000	227,900	245,800	215,000
North Carolina		201,300	174,400	207,000	178,500	190,300
Ohio		91,600	103,600	90,900	104,600	97,675
South Carolina		85,200	94,700	80,300	68,500	82,175
Texas		88,300	105,000	95,000	98,000	96,575
Virginia		49,600	47,000	61,600	64,600	55,700
Wisconsin		82,700	85,900	102,100	89,100	89,950
Other States ^(b)		442,700	406,500	411,600	436,500	424,325
Total	1,584,304	1,558,800	1,612,400	1,619,600	1,657,900	1,612,175
- Average Yield, lb. -						
California		21,184	24,488	24,241	28,580	24,409
Florida ^(a)		10,986	12,013	10,840	12,245	11,546
Michigan		6,741	7,419	8,025	8,361	7,658
North Carolina		6,194	5,383	6,311	5,219	5,771
Ohio		15,267	18,836	14,661	15,382	15,947
South Carolina		5,569	5,846	5,695	5,037	5,552
Texas		8,101	8,607	8,796	8,099	8,398
Virginia		6,442	5,875	7,897	7,258	6,877
Wisconsin		10,085	9,544	9,817	7,816	9,226
Other States ^(b)		10,005	9,412	10,797	10,831	10,233
Total	8,316	8,951	9,059	9,526	9,319	9,212

Appendix Table 12a (concl.)

Cucumbers, Field: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, United States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Farm Value, \$'000 -						
California		10,527	11,920	12,823	14,879	12,537
Florida ^(a)		12,669	14,498	12,777	17,885	14,457
Michigan		8,522	9,444	10,570	16,028	11,141
North Carolina		10,301	11,192	11,939	13,478	11,728
Ohio		5,221	5,594	4,636	8,263	5,929
South Carolina		4,498	5,451	5,188	5,439	5,144
Texas		5,403	5,910	7,565	8,103	6,745
Virginia		2,747	2,423	5,289	6,149	4,152
Wisconsin		4,631	3,866	5,207	5,702	4,852
Other States ^(b)		<u>20,684</u>	<u>21,627</u>	<u>22,885</u>	<u>30,310</u>	<u>23,877</u>
Total	<u>81,869</u>	<u>85,203</u>	<u>91,925</u>	<u>98,879</u>	<u>126,236</u>	<u>100,561</u>
- Farm Value, ¢ per lb. -						
California		5.7	5.8	6.4	7.5	6.4
Florida ^(a)		8.2	7.9	9.0	10.2	8.8
Michigan		4.8	4.6	4.6	6.5	5.2
North Carolina		5.1	6.4	5.8	7.6	6.2
Ohio		5.7	5.4	5.1	7.9	6.1
South Carolina		5.3	5.8	6.5	7.9	6.3
Texas		6.1	5.6	8.0	8.3	7.0
Virginia		5.5	5.2	8.6	9.5	7.5
Wisconsin		5.6	4.5	5.1	6.4	5.4
Other States ^(b)		<u>4.7</u>	<u>5.3</u>	<u>5.6</u>	<u>6.9</u>	<u>5.6</u>
Total	5.2	5.5	5.7	6.1	7.6	6.2

(a) Fresh market only; cucumbers for processing included with "other states."

(b) Includes Hawaii.

Source: United States, Department of Agriculture.

Appendix Table 12b

Cucumbers, Field: Fresh Market: Acreage, Production, Yield
per Acre, Farm Value and Farm Value per
Pound, United States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Acreage -					
California		2,600	2,800	2,900	3,000	2,825
Florida		14,000	15,200	13,100	14,300	14,150
Michigan		2,100	1,900	2,000	2,000	2,000
North Carolina		5,200	5,400	5,300	5,400	5,325
South Carolina		5,700	5,800	5,400	5,300	5,550
Texas		6,200	7,900	5,900	6,400	6,600
Virginia		4,900	4,300	4,000	4,300	4,375
Other States (a)		5,850	5,860	5,490	5,190	5,598
Total	49,682	46,550	49,160	44,090	45,890	46,423
	- Production, '000 lb. -					
California		62,100	70,700	71,200	76,900	70,225
Florida		153,800	182,600	142,000	175,100	163,375
Michigan		13,700	11,400	13,000	14,000	13,025
North Carolina		34,800	39,400	37,000	40,300	37,875
South Carolina		31,100	33,500	26,700	27,000	29,575
Texas		36,400	45,400	38,800	39,400	40,000
Virginia		30,400	25,200	27,400	30,000	28,250
Other States (a)		70,300	61,900	65,900	61,200	64,825
Total	461,340	432,600	470,100	422,000	463,900	447,150
	- Average Yield, lb. -					
California		23,885	25,250	24,552	25,633	24,858
Florida		10,986	12,013	10,840	12,245	11,546
Michigan		6,524	6,000	6,500	7,000	6,513
North Carolina		6,692	7,296	6,981	7,463	7,113
South Carolina		5,456	5,776	4,944	5,094	5,329
Texas		5,871	5,747	6,576	6,156	6,061
Virginia		6,204	5,860	6,850	6,977	6,457
Other States (a)		12,017	10,563	12,004	11,792	11,580
Total	9,286	9,293	9,563	9,571	10,109	9,632

Appendix Table 12b (concl.)

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Farm Value, \$'000 -					
California		4,753	5,636	6,752	7,420	6,140
Florida		12,669	14,498	12,777	17,885	14,457
Michigan		904	1,053	1,093	1,540	1,148
North Carolina		2,359	3,294	3,014	3,942	3,152
South Carolina		2,391	2,832	2,840	3,053	2,779
Texas		2,730	3,618	4,586	4,499	3,858
Virginia		2,182	1,719	3,589	3,883	2,843
Other States (a)		<u>4,754</u>	<u>5,615</u>	<u>4,780</u>	<u>6,060</u>	<u>5,302</u>
Total	31,178	32,742	38,265	39,431	48,282	39,680
	- Farm Value, ¢ per lb. -					
California		7.7	8.0	9.5	9.6	8.7
Florida		8.2	7.9	9.0	10.2	8.8
Michigan		6.6	9.2	8.4	11.0	8.8
North Carolina		6.8	8.4	8.1	9.8	8.3
South Carolina		7.7	8.5	10.6	11.3	9.4
Texas		7.5	8.0	11.8	11.4	9.6
Virginia		7.2	6.8	13.1	12.9	10.1
Other States (a)		6.8	9.1	7.3	9.9	8.2
Total	6.8	7.6	8.1	9.3	10.4	8.9

(a) Includes Hawaii.

Source: United States, Department of Agriculture.

Appendix Table 12c

Cucumbers, Field: Processing Market: Acreage, Production, Yield
per Acre, Farm Value and Farm Value per
Pound, United States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
California		6,100	5,600	5,400	3,900	5,250
Michigan		24,500	26,000	26,400	27,400	26,075
North Carolina		27,300	27,000	27,500	28,800	27,650
Ohio		6,000	5,500	6,200	6,800	6,125
South Carolina		9,600	10,400	8,700	8,300	9,250
Texas		4,700	4,300	4,900	5,700	4,900
Virginia		2,800	3,700	3,800	4,600	3,725
Wisconsin		8,200	9,000	10,400	11,400	9,750
Other States		<u>38,400</u>	<u>37,330</u>	<u>32,630</u>	<u>35,110</u>	<u>35,868</u>
Total	140,828	127,600	128,830	125,930	132,010	128,593
- Production '000 lb. -						
California		122,200	135,000	130,000	120,300	126,875
Michigan		165,600	195,600	214,900	231,800	201,975
North Carolina		166,500	135,000	170,000	138,200	152,425
Ohio		91,600	103,600	90,900	104,600	97,675
South Carolina		54,100	61,200	53,600	41,500	52,600
Texas		51,900	59,600	56,200	58,600	56,575
Virginia		19,200	21,800	34,200	34,600	27,450
Wisconsin		82,700	85,900	102,100	89,100	89,950
Other States		<u>372,400</u>	<u>344,600</u>	<u>345,700</u>	<u>375,300</u>	<u>359,500</u>
Total	1,122,964	1,126,200	1,142,300	1,197,600	1,194,000	1,165,025
- Average Yield, lb. -						
California		20,033	24,107	24,074	30,846	24,167
Michigan		6,759	7,523	8,140	8,460	7,746
North Carolina		6,099	5,000	6,182	4,799	5,513
Ohio		15,267	18,836	14,661	15,382	15,947
South Carolina		5,635	5,885	6,161	5,000	5,687
Texas		11,043	13,860	11,469	10,281	11,546
Virginia		6,857	5,892	9,000	7,522	7,369
Wisconsin		10,085	9,544	9,817	7,816	9,226
Other States		<u>9,698</u>	<u>9,231</u>	<u>10,595</u>	<u>10,689</u>	<u>10,023</u>
Total	7,973	8,826	8,867	9,510	9,045	9,060

Appendix Table 12c (concl.)

Cucumbers, Field: Processing Market: Acreage, Production, Yield
per Acre, Farm Value and Farm Value per
Pound, United States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Farm Value, \$'000 -						
California		5,774	6,284	6,071	7,459	6,397
Michigan		7,618	8,391	9,477	14,488	9,994
North Carolina		7,942	7,898	8,925	9,536	8,575
Ohio		5,221	5,594	4,636	8,263	5,929
South Carolina		2,107	2,619	2,348	2,386	2,365
Texas		2,673	2,292	2,979	3,604	2,887
Virginia		565	704	1,700	2,266	1,309
Wisconsin		4,631	3,866	5,207	5,702	4,852
Other States		<u>15,930</u>	<u>16,012</u>	<u>18,105</u>	<u>24,250</u>	<u>18,574</u>
Total	50,691	52,461	53,660	59,448	77,954	60,881
- Farm Value, ¢ per lb. -						
California		4.7	4.7	4.7	6.2	5.0
Michigan		4.6	4.3	4.4	6.3	4.9
North Carolina		4.8	5.9	5.3	6.9	5.6
Ohio		5.7	5.4	5.1	7.9	6.1
South Carolina		3.9	4.3	4.4	5.7	4.5
Texas		5.2	3.8	5.3	6.2	5.1
Virginia		2.9	3.2	5.0	6.5	4.8
Wisconsin		5.6	4.5	5.1	6.4	5.4
Other States		4.3	4.6	5.2	6.5	5.2
Total	4.5	4.7	4.7	5.0	6.5	5.2

Source: United States, Department of Agriculture.

Cucumbers, n.o.p.: Dates of Application and Removal of the Seasonal Specific Duty,
by Tariff Region, 1966-1975

(a) Year	Maritime Provinces			(b) Central Canada			(c) Western Canada		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	Apr. 21	Sept. 22	154	Apr. 13	Sept. 14	154	July 5	Oct. 7	94
1967	Apr. 13	Sept. 14	154	Apr. 4	Sept. 5	154	June 30	Oct. 30	122
1968	Apr. 9	Sept. 10	154	Apr. 17	Sept. 18	154	June 20	Oct. 21	123
1969	Apr. 3	Sept. 4	154	Apr. 3	Sept. 4	154	June 20	Nov. 14	147
1970	Apr. 24	Sept. 25	154	Apr. 3	Sept. 4	154	Apr. 30	Sept. 23	146
1971	May 18	Oct. 19	154	Apr. 6	Aug. 4	120	Apr. 6	Apr. 29	23
1972	May 2	Oct. 3	154	Apr. 18	Sept. 19	154	July 8	Nov. 2	117
1973	Apr. 3	Sept. 4	154	Apr. 3	Sept. 4	154	Apr. 5	May 12	37
1974	May 10	Oct. 10	153	Apr. 2	Sept. 2	153	June 6	Oct. 1	117
1975	Apr. 11	Sept. 11	153	Apr. 22	Sept. 12	143	Apr. 10	May 11	31
							June 5	Oct. 6	123
							Apr. 19	May 27	38
							July 16	Sept. 19	65
							May 9	Oct. 9	153

(a) Government fiscal year, beginning April 1st, ending March 31 of following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Cucumbers, n.o.p.: Dutiable Imports and the Ad Valorem Equivalent of the M.F.N.
Specific Duty, 1966-1975

Year	Imports				Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total	Non- Dutiable					
			Dutiable	%			
	'000 lb.	'000 lb.	'000 lb.	%			
1966	21,841	44	21,797	99.8	8.2	2.25	27.4
1967	25,885	26	25,859	99.9	7.7	2.25	29.2
1968	20,383	143	20,240	99.3	8.7	2.25	25.9
1969	28,391	28	28,363	99.9	8.5	2.25	26.5
1970	32,566	130	32,436	99.6	8.5	2.25	26.5
Average 1966-70	25,813	74	25,739	99.7	8.3	2.25	27.1
1971	32,374	65	32,309	99.8	8.7	2.25	29.2
1972	39,198	157	39,041	99.6	8.2	2.25	27.4
1973	42,045	19,425	22,620	53.8	9.9	2.25	22.7
1974	46,560	13,130	33,430	71.8	10.7	2.25	21.0
1975	48,728	439	48,289	99.1	14.0	2.25	16.1
Average 1971-75	41,781	6,643	35,138	84.1	10.6	2.25	21.2

Source: Statistics Canada.

EGGPLANT

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EGGPLANT

Eggplant (Solanum melongena) is a tender perennial plant of the nightshade family which also includes the potato, tomato and pepper. Eggplant is also known as eggfruit, aubergine and guinea squash. Two varieties, the snake eggplant (var. serpentinum) and the dwarf eggplant (var. depressum) would, on importation, be classified for duty purposes as eggplant.

The bushy plant on which this vegetable grows attains a height of 2 to 4 feet. It is a very minor crop in Canada with production restricted to the warmer southern regions of British Columbia, Ontario, Quebec, and Manitoba.

GROWING, HARVESTING AND MARKETING

Eggplant is a very tender plant that requires a long, warm growing season for successful production and, for that reason, it is normally started in a greenhouse or hotbed some nine to 10 weeks before field planting. The plant is killed by light frost and is injured by long periods of cool frostless weather. In Canada, sandy or sandy loam soils are preferable as these types warm up more rapidly during the short domestic growing season.

Eggplant is hand-harvested with the stem attached to the fruit. Careful handling is essential to reduce damage.

The domestic marketing season extends from approximately August 1 to the end of October. Eggplants are purchased by retailers in bushels or crates and resold to consumers by the individual fruit or by the pound.

Eggplants have a storage life of 10-14 days.

PRODUCTION AND CONSUMPTION

Very few data are available on the production and consumption of eggplant in Canada. However, the Board has estimated that domestic production averaged 1.5 million pounds during the period 1971-74 which represents a small increase of 7 per cent over the average output of 1.4 million pounds in the 1966-70 period (see Table 1).

Total Canadian consumption, which is heavily supplemented by imports, averaged 8.0 million pounds, during 1971-74, an increase of 43 per cent over the average consumption during 1966-70. Per capita consumption during 1971-74 averaged approximately one-third of a pound.

Imports accounted for an average of 81 per cent of total Canadian consumption, a percentage which has risen from 74 per cent during 1966-70. When domestic supplies are not available Canadian consumers are entirely dependent on imports. Foreign eggplant represents nearly half of the market during the Canadian production season as well, and has increased its share of total eggplant consumption at that time from 42.6 per cent in 1966-70 to 49.3 per cent in 1971-74.

No information is available on the farm value of this crop in Canada.

IMPORTS

The major source of supply is the United States, particularly the states of Florida and New Jersey, followed by Mexico. Imports averaged 6.5 million pounds during 1971-74 - 8.0 million pounds in 1974 - (see Appendix Tables 1 and 4). Imports are fairly evenly distributed by month (see Appendix Table 2).

Imports are heavily concentrated in the central tariff region, Ontario and Quebec. These two provinces, with 63 per cent of the Canadian population, and the major proportion of total domestic output, accounted for 87 per cent of total imports in 1974 (see Appendix Table 3). The relatively high proportion of total consumption in central Canada would seem attributable to the increase in immigration to this area from countries where eggplant is commonly eaten.

Table 1: Eggplant: Supply and Disposition, Canada,
1966-1974

<u>Year</u>	<u>Production</u> ^(a)	<u>Imports</u>	<u>Total Canadian Consumption</u>	<u>Imports as % of Consumption</u>
		- '000 lb. -		per cent
Average 1966-70	1,442	4,168	5,610	74.3
1971	1,214	5,333	6,547	81.5
1972	928	5,925	6,853	86.5
1973	2,391	6,710	9,101	73.7
1974	1,638	8,041	9,679	83.1
Average 1971-74	1,543	6,502	8,045	80.8

(a) Tariff Board estimate.

Source: Derived from Agriculture Canada data and Customs documents, tabulated by Statistics Canada.

CANADA-UNITED STATES COMPARISONS

Acreage, production, yield and farm values in the United States are shown in Appendix Table 5. During the period 1971-74, the major producing states of Florida and New Jersey had a combined output of 52 million pounds of eggplant, compared to the estimated Canadian production of 1.5 million pounds. Florida, with three crops annually and a higher average yield, is considerably ahead of New Jersey, with one crop, in total production.

Data on eggplant production in Mexico are not available.

TARIFF CONSIDERATIONS

Eggplant is classified under tariff item 8713-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Eggplant	10 p.c.	10 p.c.	30 p.c.
	or	or	or
	Free	Free	Free

In any 12 month period ending 31st March, the ad valorem duty shall not be maintained in force in excess of 8 weeks, and the Free rate shall apply whenever the ad valorem duty is not in effect.

Tariff item 8713-1 is bound under GATT.

The present tariff has been in effect since January 1, 1968. From 1959 to 1967, eggplant was dutiable on a 12-month basis at the same rates as the present seasonal duties. Prior to April 10, 1959 the rate of duty was Free under the British Preferential and Most-Favoured-Nation Tariff and 30 p.c. under the General Tariff.

When imported into the United States, eggplant from Canada is classified under item 136.20 at the rate of 1.5 cents per pound during the period April 1 to November 30, inclusive, and 1.1 cents per pound at all other times.

In their brief to the Board, The Canadian Horticultural Council proposed that no changes be made to tariff item 8713-1.

The seasonal tariff, since its inception in 1968, has never been imposed in the Maritime Provinces, and on only one occasion, in 1969, in central and western Canada for a period of 56 days. During that period, duty was applicable on approximately 9 per cent of the total 1969 imports of eggplant.

CONCLUSIONS

Annual consumption of eggplant during 1971-74 was estimated at about 8 million pounds of which some 30 per cent is supplied by imports. While Canadian consumption between 1966-70 and 1971-74 rose by some 43 per cent, domestic output increased by only 7 per cent, and imports thus accounted for the bulk of the expansion in the market. Even during the Canadian production season, August to October, the share held by Canadian growers dropped to about half during the period 1971-75.

The Board is of the opinion that, due to the climatic limitations on eggplant cultivation in Canada, the production of this vegetable is unlikely to rise in the absence of a much higher level of protection. Moreover, the Board feels that, in view of its very infrequent imposition, the existing duty serves little purpose in

encouraging Canadian production or restraining imports. The Board concludes that a seasonal duty is not required for eggplant, and recommends free entry under the British Preferential, Most-Favoured-Nation and General Tariff.

RECOMMENDATIONS

The Board recommends that tariff item 8713-3 be deleted and the following item be inserted in Schedule "A" of the Customs Tariff.

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Eggplant	Free	Free	Free

Appendix Table 1

Eggplant: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Hong Kong</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -					
1966	3,492	142	-	5	3,638
1967	3,956	213	-	53	4,223
1968	3,378	219	-	-	3,597
1969	4,326	526	1	-	4,853
1970	3,444	1,083	1	-	4,528
Average 1966-70	3,719	437	*	12	4,168
1971	4,172	1,161	-	-	5,333
1972	4,457	1,458	3	6	5,925
1973	4,787	1,920	2	*	6,710
1974	6,534	1,504	-	3	8,041
1975	6,962	1,557	-	6	8,526
Average 1971-75	5,382	1,520	1	3	6,907

Source: Customs documents, tabulated by Statistics Canada.

Appendix Table 2

Eggplant: Imports by Month, 1966-1975

<u>Month</u>	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	334	8.0	555	8.0	523	383	686	679
Feb.	301	7.2	695	10.1	500	934	674	818
Mar.	412	9.9	610	8.8	549	737	619	652
Apr.	392	9.4	650	9.4	473	669	606	914
May	321	7.7	568	8.2	553	520	694	700
June	233	5.6	509	7.4	398	375	544	813
July	383	9.2	519	7.5	394	474	552	733
Aug.	418	10.0	552	8.0	539	473	675	501
Sept.	289	6.9	425	6.2	287	332	702	510
Oct.	353	8.5	548	7.9	454	549	859	670
Nov.	372	8.9	615	8.9	571	663	722	709
Dec.	360	8.7	663	9.6	683	603	706	825
Total	4,168	100.0	6,907	100.0	5,925	6,710	8,041	8,526

Source: Customs documents, tabulated by Statistics Canada.

Eggplant: Imports by Province and Region, 1971-1975

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -				
Atlantic Region	38	49	52	70	73
Nfld.	-	-	1	-	3
P.E.I.	16	26	25	31	27
N.S.	*	*	1	*	*
N.B.	22	23	24	39	43
Central Region	4,721	5,192	5,787	6,957	7,228
Que.	2,338	2,741	2,610	3,147	3,362
Ont.	2,383	2,451	3,176	3,810	3,866
Western Region	574	684	871	1,015	1,224
Man.	41	63	82	118	180
Sask.	9	12	12	21	37
Alta.	97	104	135	145	236
B.C.	427	505	642	731	772
Canada	5,333	5,925	6,710	8,041	8,526

Source: Customs documents, tabulated by Statistics Canada.

Eggplant: Percentage Distribution of Imports for Fresh Market,
from United States, by State of Origin, by Region, 1972-1974

	<u>Florida</u>	<u>New Jersey</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
	- per cent -				
<u>1972</u>					
Atlantic Region	16.7	-	14.8	68.5	100.0
Central Region	52.7	21.9	20.4	5.0	100.0
Western Region	0.2	-	64.1	35.9	100.0
Canada	48.7	20.1	23.4	7.8	100.0
<u>1973</u>					
Atlantic Region	27.9	3.3	16.4	52.4	100.0
Central Region	50.2	21.0	25.4	3.4	100.0
Western Region	1.0	-	62.2	36.8	100.0
Canada	46.2	19.3	28.1	6.4	100.0
<u>1974</u>					
Atlantic Region	37.5	1.3	6.2	55.0	100.0
Central Region	50.5	27.5	18.8	3.2	100.0
Western Region	10.7	-	49.8	39.5	100.0
Canada	47.0	24.9	21.3	6.8	100.0

Source: Agriculture Canada.

Eggplant: Acreage, Production, Yield per Acre, Farm
Value and Farm Value per Pound, United
States, by State, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -					
Florida	1,670	2,000	1,600	1,950	1,805
New Jersey	1,100	1,100	1,200	1,300	1,175
Total	2,770	3,100	2,800	3,250	2,980
- Production, '000 lb. -					
Florida	28,300	37,300	33,500	42,300	35,350
New Jersey	15,400	14,900	19,200	18,200	16,925
Total	43,700	52,200	52,700	60,500	52,275
- Average Yield, lb. -					
Florida	16,946	18,650	20,938	21,692	19,584
New Jersey	14,000	13,545	16,000	14,000	14,404
Total	15,776	16,839	18,821	18,615	17,542
- Farm Value, \$'000 -					
Florida	2,920	3,188	3,733	5,022	3,716
New Jersey	1,093	1,342	1,431	2,020	1,472
Total	4,013	4,530	5,164	7,042	5,187
- Farm Value, ¢ per lb. -					
Florida	10.3	8.6	11.1	11.9	10.5
New Jersey	7.1	9.0	7.5	11.1	8.7
Total	9.2	8.7	9.8	11.6	9.9

Source: U.S. Department of Agriculture.

ENDIVE, ESCAROLE, CHICORY and WITLOOFTable of Contents

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ENDIVE, ESCAROLE, CHICORY AND WITLOOF

Endive, escarole, chicory and witloof belong to the chicory group of plants. Witloof is a product of the species Cichorium intybus, commonly called the "chicory" plant. This plant, a native of Europe, is grown for its roots as well as its leaves. The root, not unlike the parsnip root in appearance, is used to produce a coffee substitute and is not itself used as a vegetable. The green leaves, called "chicory," are used for salads; the green leaves, as a head, are somewhat similar in appearance to a head of endive or escarole.

The chicory root may also be harvested for the production of witloof. After harvesting, the root is stored for some months, and is then replanted in a dark place or under a layer of soil. Because of the absence of sunlight, this process results in a tight head of blanched leaves, whence its name witloof or white leaves. This special culture was most prominent in Belgium, as a result of which it is sometimes called "Belgium endive," even though it differs greatly from endive, escarole or, for that matter, from chicory as well.

Endive and escarole are varieties of Cichorium endivia, a hardy annual plant with leaves clustered at the base. The leaves are brittle, and oblong, lobed, deeply cut or curled in shape. The deeply cut and very curly variety is frequently referred to as "endive" and the broad-leaved slightly curled variety as "escarole." Both varieties are marketed, however, interchangeably under both names, probably because they are somewhat similar in appearance and in use.

Endive, escarole and chicory are similar to lettuce in soil and climatic requirements. All can be grown successfully throughout the summer in the more northern temperate regions of North America or at high altitudes. In general they thrive best as an early spring or late fall crop as these plants do not do well in hot weather. They are more tolerant to high humidity and rain than lettuce. In Canada and northern areas of the United States, plants can be started under glass and transplanted to the field as soon as danger of hard frost is past. Seed for the fall crop is usually sown in June and July. The Canadian production season extends from June to November but is concentrated principally in the months of August to October.

Endive, escarole, chicory and witloof are non-storable vegetables. Optimum storage conditions require a temperature of 0°C and humidity of 95 per cent plus, and even under these conditions three weeks is the maximum storage period.

PRODUCTION

Although no detailed information is available with respect to acreage and production of endive, escarole and chicory, there is evidence to suggest that Canadian growers do produce considerable volumes of both escarole and chicory, but only a small quantity of endive. There is no information relating to the commercial production of witloof in Canada; this is believed to be negligible.

On the basis of unload information, it is estimated that total Canadian production of escarole, chicory and endive was about 2.5 million, 4 million, and 1 million pounds in 1972, 1973, and 1974 respectively. Escarole and chicory comprise the bulk of such production; endive production is estimated at less than 100,000 pounds annually. With respect to escarole and chicory, data on marketings at 12 principal wholesale markets indicate that production of these two vegetables increased greatly from 1972 to 1973, and then dropped very sharply in 1974. In the latter year, unloads of escarole and chicory totalled 204,000 and 279,000 pounds, respectively, compared to 941,000 and 1,054,000 pounds in 1973 and 508,000 and 687,000 pounds in 1972.

Production appears to be centred principally in Quebec. Most, if not all, of the domestic and imported endive, escarole and chicory are for the fresh market; the Board did not obtain evidence of any processing of these vegetables in Canada, although the Board is aware of small quantities of imported canned endive. It should be noted that witloof culture is a high cost operation, and that witloof is a relatively high value-for-weight product which can absorb the cost of air transport from Europe; this is not the case with endive or escarole.

SUPPLY AND DISPOSITION

Most of the witloof consumed in Canada would appear to be imported, although data do not distinguish between witloof and like products. However, it would seem on the basis of f.o.b. values that imports from Belgium, France, and the Netherlands under tariff item 8726-1 have been principally witloof, while those from the United States have been mostly escarole and endive. The import data suggest that Canadian consumption of witloof probably averaged 352,000 pounds annually during the years 1971-74, considerably above the corresponding figure of 187,000 pounds for 1966-70. Thus, domestic consumption of this vegetable, though small, has evidently grown rapidly. The balance of imports under tariff item 8726-1 ("Whitloof or Endive") are endive and escarole (4,018,000 pounds annually in 1971-74); however, unknown quantities of escarole and chicory are also entered under item 8731-1 as "Vegetables, fresh, n.o.p."

Practically all escarole, chicory and endive produced in Canada are apparently consumed domestically. Only very small quantities have been exported in recent years, while substantial volumes have been imported. Disregarding the quantities imported under tariff item 8731-1, which might vary considerably from year to year, Table 1 suggests that total consumption of these three vegetables may have declined rapidly since 1972. This decline in consumption appears to have affected both imports and Canadian production, but the latter most. Imports constituted at least 78 per cent of total known consumption in 1972, approximately 63 per cent in 1973 and 85 per cent in 1974. On the basis of the above figures, imports have gained an increasing share of a declining market.

Table 1: Production, Imports and Consumption of Escarole, Chicory and Endive, 1972-1974

	- million lb. -		
	<u>1972</u>	<u>1973</u>	<u>1974</u>
Production (est.)	2.5	4.0	1.0
Imports ^(a)	9.1	6.7	5.7
Consumption	11.6	10.7	6.7

(a) Estimated based on unloads of imports of escarole, chicory and endive at 12 principal Canadian markets.

Source: Tariff Board estimate.

It may be noted that imports under tariff item 8726-1 from the United States, mostly escarole, chicory and endive, totalled 4.2 million pounds in 1974 (see Appendix Table 2), an amount considerably below that given in Table 1. Unload data suggest that additional imports of escarole and chicory under tariff item 8731-1 might have amounted to 1.5 million pounds in 1974.

Imports of escarole, chicory and endive are distinctly seasonal. During the Canadian production season, imports under tariff item 8726-1 drop very sharply (see Appendix Table 3), only 3.8 per cent of total imports in 1971-74 occurring in the months of August to October, inclusive. Additional imports data, based on unload information, also show only a very small proportion of imports entering in these months; in 1971-74 about 3 per cent of annual escarole imports were entered in August, September, and October; corresponding figures for chicory and endive are 1 and 4 per cent, respectively. In season, Canada appears to be largely self-sufficient with respect to these three vegetables.

PRICES

There is no published information available concerning the average farm values, or wholesale prices, of domestic endive, escarole, chicory and witloof. On the basis of import data it is clear, however, that witloof is a higher-priced commodity than endive, escarole, and chicory, and that in recent years prices for these vegetables, as those for most vegetables, have increased. Imports under tariff item 8726-1 from Europe, mostly witloof, averaged 37.2 cents per pound during the period 1971-74, or some 60 per cent higher than the average of 23.2 cents per pound during the previous five years. Imports from the United States, mostly escarole, endive and chicory averaged 10.1 and 8.0 cents per pound during these two periods respectively, an increase of 26 per cent. Total imports under tariff item 8726-1 have tended to reach their highest value per pound during August, September, and October, suggesting that the small quantities of imports during these months have consisted mostly of witloof, with negligible imports of escarole, endive and chicory during that period.

TARIFF CONSIDERATIONS

Witloof and endive are currently classified under tariff item 8726-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>G.T.</u>
Whitloof or endive	Free	Free	30 p.c.

It may be noted that the term "whitloof" is apparently misspelled in this item. Present rates of duty have been in effect since June 4, 1969; applicable duties have fluctuated since 1936 as indicated below:

Table 2: Witloof or Endive: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>G.T.</u>
1936-1938	Free	15 p.c.	30 p.c.
1939-1959 (Apr. 9)	Free	Free	30 p.c.
1959 (Apr. 10) - 1967	10 p.c.	10 p.c.	30 p.c.
1968 (Jan. 1)	8 p.c.	8 p.c.	30 p.c.
1969 (Jan. 1)	6 p.c.	6 p.c.	30 p.c.
1969 (June 4)	Free	Free	30 p.c.

Source: Canadian Customs Tariff.

The present provision for free entry resulted from GATT negotiations during 1966-67. Current tariff item 8726-1 is bound under GATT. Neither The Canadian Horticultural Council, nor any other interested party, recommended any change in either existing nomenclature or rates of duty.

While the description of the item specifies "whitloof or endive," it is clear that considerable volumes of escarole also enter under this item, as do perhaps small quantities of chicory. On the other hand, since the description does not necessarily include escarole or chicory, these vegetables also enter under tariff item 8731-1 as "Vegetables, fresh, n.o.p." It should also be noted that chicory is specifically mentioned in tariff item 2400-1 "Chicory, raw or green." This tariff item is included in that part of the schedule dealing with coffee and coffee substitutes, and is intended to be used to classify raw, unprocessed chicory roots, with or without leaves, but not heads of chicory for use as a vegetable.

The Board, therefore, considered certain changes in tariff nomenclature from the viewpoint of clarity and ease of classification. One solution would be to divide present tariff item 8726-1 into two new items, one specifying "witloof" and the other "chicory, escarole and endive." This would help ease classification, in that it would specify two products - chicory and escarole - not mentioned in that section of the tariff schedule currently dealing with fresh vegetables,

and would separate out witloof which is quite different in appearance, and price, from the other three vegetables. Two such items would be useful for monitoring import competition, and for implementing different rates of duty. However, if no differential tariff treatment is envisaged a single item specifying "witloof, chicory, escarole or endive" would suffice. Alternatively, due to its limited commercial importance, witloof could be classified to tariff item 8731-1, "Vegetables, fresh, n.o.p." In this case, an item would remain applying to "Escarole, endive and chicory."

Although no change in rate of duty was proposed, the Board did consider whether the pertinent vegetables which are apparently produced in Canada in substantial quantities, i.e., escarole and chicory, should not be given some tariff protection. Such protection might include endive as well; although its domestic production is believed to be small, statistical information does not clearly distinguish between escarole and endive, these two terms often being used interchangeably. However, in view of the fact that off-season requirements must be entirely imported, a duty during the off-season would increase the cost of these vegetables to the consumer without any benefits to Canadian growers. A seasonal duty would, of course, be beneficial to Canadian producers, but not to the extent of significantly reducing the level of import competition, because it seems that "in season" domestic growers already supply most of the domestic market. With respect to witloof, the Board believes that this vegetable should also continue to enter free of duty, inasmuch as Canadian commercial production of this vegetable is very limited and most of domestic consumption is met by imports.

CONCLUSIONS

It would appear that Canada is largely self-sufficient with respect to escarole, endive and chicory during the months when Canadian production is available. While imports of these vegetables are substantial, the bulk of these imports enter during the off-season. Domestic production of witloof is believed to be very small - none is reported - and the small volume consumed domestically is mostly imported.

In order to provide for more consistent classification of these vegetables and for more accurate monitoring of import competition, consideration should be given to changing the description of the present tariff item 8726-1 to read "Escarole, endive and chicory." In turn, a new tariff item should be established for the entry of witloof.

The Board views that an increase in the B.P. and M.F.N. rates of duty, from the present rate of Free, is at this time unwarranted; also, there would be no change in the Gen. rate. While the present tariff item 2400-1 is not specifically referred to the Board in this Reference, a revision in nomenclature is recommended to limit its application to chicory roots as opposed to heads of chicory used as a vegetable.

RECOMMENDATIONS

The Board recommends the deletion of existing tariff items 2400-1 and 8726-1 and the insertion of the following tariff items and rates of duty in Schedule "A" of the Customs Tariff:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Chicory roots, raw or green, with or without leaves per pound	Free	Free	3 cts.
Escarole, endive and chicory	Free	Free	30 p.c.
Witloof	Free	Free	30 p.c.

Endive, Escarole, Chicory and Witloof: Estimated Monthly Distribution of Fresh Market Consumption, 1972-1974

Month	1972			Imports as % of Con- sumption	1973			Imports as % of Con- sumption	1974			Imports as % of Con- sumption	
	From Domestic Produc- tion(a)	From Imports	Total Consump- tion		From Domestic Produc- tion(a)	From Imports	Total Consump- tion		From Domestic Produc- tion(a)	From Imports	Total Consump- tion		
	- thousand pounds -												
Jan.	-	1,512	1,512	100.0	-	1,016	1,016	100.0	-	905	905	100.0	
Feb.	-	1,346	1,346	100.0	-	873	873	100.0	-	793	793	100.0	
Mar.	-	1,326	1,326	100.0	-	1,061	1,061	100.0	-	867	867	100.0	
April	-	1,411	1,411	100.0	-	1,128	1,128	100.0	-	922	922	100.0	
May	-	887	887	100.0	-	886	886	100.0	-	656	656	100.0	
June	9	427	436	97.9	64	320	384	83.3	-	269	269	100.0	
July	164	93	257	36.2	366	114	480	23.8	63	78	141	55.3	
Aug.	693	15	708	2.1	1,717	10	1,727	0.6	671	9	680	1.3	
Sept.	808	25	833	3.0	973	24	997	2.4	171	18	189	9.5	
Oct.	748	232	980	23.7	825	303	1,128	26.9	55	201	256	78.5	
Nov.	78	775	853	90.9	55	430	485	88.7	-	425	425	100.0	
Dec.	-	1,056	1,056	100.0	-	535	535	100.0	40	557	597	93.3	
Total	2,500 (Est)	9,105(b)	11,605	78.5	4,000 (Est)	6,700(b)	10,700	62.6	1,000 (Est)	5,700(b)	6,700	85.1	

(a) Domestic production consists principally of escarole and chicory; endive production is of minor volume and that for witloof is assumed to be negligible.

(b) Based on unload data.

Source: Tariff Board estimate.

Witloof or Endive: Imports by Country of Origin, 1966-1975(a)

<u>Year</u>	<u>United States</u>	<u>Belgium</u>	<u>Netherlands</u>	<u>Other</u>	<u>Total</u>
- thousand pounds -					
1966	3,009	64	13	-	3,086
1967	3,358	101	16	*	3,475
1968	2,934	195	4	-	3,133
1969	3,964	218	-	24	4,205
1970	3,715	293	6	3	4,017
Average 1966-70	3,396	174	8	5	3,583
1971	3,704	404	-	-	4,108
1972	4,057	336	-	-	4,393
1973	4,154	372	-	10	4,536
1974	4,156	275	-	13	4,443
1975	4,249	154	-	19	4,422
Average 1971-75	4,064	308	-	8	4,381

(a) Imports may include, in part, escarole and chicory also.

Source: Customs documents, tabulated by Statistics Canada.

Witloof or Endives: Imports by Month, 1966-1974(a)

	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-74</u>	<u>%</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
- thousand pounds -								
Jan.	464	13.0	632	14.5	523	730	688	588
Feb.	449	12.5	576	13.2	597	650	591	467
Mar.	550	15.4	670	15.3	701	640	718	621
Apr.	606	16.9	656	15.0	532	681	764	645
May	472	13.2	485	11.1	483	428	600	430
June	277	7.7	243	5.6	242	206	217	309
July	70	2.0	71	1.6	42	45	77	120
Aug.	4	0.1	8	0.2	1	7	7	18
Sept.	16	0.4	19	0.4	24	12	16	25
Oct.	64	1.8	141	3.2	50	112	205	197
Nov.	213	5.9	369	8.4	304	374	291	505
Dec.	396	11.1	500	11.5	609	510	362	518
Total	3,583	100.0	4,370	100.0	4,108	4,393	4,536	4,443

(a) Imports may include, in part, escarole and chicory also.

Source: Customs documents, tabulated by Statistics Canada.

Witloof or Endive: Dutiable and Non-Dutiable Imports, 1966-1975(a)

Year	Imports					Price f.o.b. Dutiable ¢/lb.
	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.	%	
1966	3,086	1	*	3,085	100.0	7.9
1967	3,475	-	-	3,475	100.0	15.5
1968	3,133	2	0.1	3,131	99.9	9.9
1969	4,205	1,052	25.0	3,153	75.0	11.3
1970	4,017	4,016	100.0	1	*	7.8
Average 1966-70	3,583	1,014	28.3	2,569	71.7	8.5
1971	4,108	4,108	100.0	-	-	-
1972	4,393	4,393	100.0	-	-	-
1973	4,536	4,534	100.0	2	*	27.8
1974	4,443	4,443	100.0	*	*	17.5
1975	4,422	4,421	100.0	1	*	8.7
Average 1971-75	4,381	4,380	100.0	1	*	18.7

(a) Imports may include, in part, escarole and chicory also.

Source: Customs documents, tabulated by Statistics Canada.

HORSERADISH

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HORSERADISH

Horseradish (Armoracia rusticana, Radicula armoracia or Armoracia lepathifolia) is a hardy perennial plant related to cabbage, turnips and mustard. It is grown for its fleshy pungent root which may be stored for up to one year.

Horseradish is cultivated in temperate zones; it will grow in almost any good soil, but does best in a deep, rich, moist loam. It is grown from crowns and root cuttings and harvested during the autumn and early winter.

Nearly all production is processed into ground or grated horseradish.

Processors desire roots that are large, free of crown or root branches and free of woodiness due to age. The root tissue is grated and packed in white or distilled vinegar in glass containers for use as a relish or condiment.

PRODUCTION AND CONSUMPTION

Very few data are available on the production and consumption of horseradish in Canada. Imports supplement Canadian production. On the basis of an estimate of 1974 production prepared by the Fruit and Vegetable Division of Agriculture Canada, measurable production is confined almost exclusively to Ontario where output was estimated at 1.3 million pounds from 220 acres. The same source placed production in Quebec at 6,000 pounds from one acre; output in the remainder of Canada was rated insignificant. The Board estimates that the farm value of this crop was not more than \$300,000 in 1974.

All recent imports of fresh horseradish have been from the United States. Imports by month are listed in Appendix Table 1. It can be seen that imports have been declining. In 1974, they totalled 98,721 pounds, less than 10 per cent of estimated domestic production for that year. The total value of imports was \$36,829 at a unit value of 37.3 cents per pound.

Some fresh horseradish is exported from Canada. According to United States data, ⁽¹⁾ imports into that country from Canada amounted to 149,600 pounds in 1973 and 360,600 pounds in 1974, valued in the latter year at \$71,697 or 19.9 cents per pound.

TARIFF CONSIDERATIONS

Horseradish is classified under tariff item 8714-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>General</u>
Horseradish	Free	Free	30 p.c.

(1) United States Foreign Trade Imports, Commodity by Country.

The present tariff has been in effect since 1959 and is bound under GATT.

When imported into the United States, horseradish is classified under item 136.40 and is dutiable at the rate of 1.1 cents per pound.

No party appearing before the Board proposed that tariff item 8714-1 be changed either as to nomenclature or rates of duty. The limited data base does not permit the drawing of any firm conclusions on the trend of production in Canada. However, it may be assumed that imports are not adversely affecting domestic output as the level of imports appears to be declining. This factor, together with recently rising exports, indicates a competitive industry which does not need protection.

RECOMMENDATIONS

The Board recommends no change in the nomenclature and rates of duty applicable to horseradish.

Horseradish: Imports by Month, 1966-75

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- pounds -								
Jan.	30,736	8.3	6,749	3.2	30,000	250	1,933	850
Feb.	22,400	6.0	10,627	5.0	-	27,900	1,235	-
Mar.	67,908	18.3	38,154	17.9	76,750	76,969	6,710	5,340
Apr.	40,938	11.1	30,139	14.2	17,345	25,303	4,226	56,177
May	12,437	3.4	2,597	1.2	6,700	2,500	520	3,163
June	22,030	6.0	5,452	2.6	25,000	-	1,360	400
July	26,713	7.2	2,172	1.0	10,000	-	220	640
Aug.	4,725	1.3	2,275	1.1	-	2,265	4,370	4,740
Sept.	15,683	4.2	9,453	4.4	10,150	410	200	1,153
Oct.	51,587	13.9	16,536	7.8	27,500	24,362	18,065	12,403
Nov.	55,772	15.1	36,321	17.1	35,000	50,029	55,062	16,366
Dec.	<u>19,252</u>	<u>5.2</u>	<u>52,223</u>	<u>24.5</u>	<u>57,450</u>	<u>80,573</u>	<u>4,820</u>	<u>37,724</u>
Total	370,226	100.0	212,698	100.0	295,895	290,561	98,721	138,956

Source: Customs documents, tabulated by Statistics Canada.

LETTUCE

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LETTUCE

Lettuce is a garden vegetable (L. sativa), belonging to the genus Lactuca (so called for their milky juices). It is principally used in the fresh form, in salads. Originally, salads were the edible parts of various herbs or plants dressed with salt - from which the word salad comes. While there is a growing appreciation today of salads and lettuce because of their low caloric content and hence their contribution to balanced diets and improved health, historical references indicate that lettuce appeared at the tables of Persian kings as far back as 550 B.C.

There are four varieties of L. sativa: leaf or curled lettuce (var. crispa), head or cabbage lettuce (var. capitata), romaine- or cos-type lettuce (var. longifolia) and asparagus lettuce (var. asparagina, or, in some taxonomies, var. angustana).

Leaf lettuce is crisp and, unless very young, a somewhat tough non-heading type. The loose leaves branch from a single stalk, are light or dark green, and are the type frequently used as an under garnish for moulded salads.

Head lettuce includes both the crisphead and butterhead varieties. The crisphead or iceberg lettuce has a large, firm head with crisp, brittle, tightly packed leaves. The outer leaves are medium green and fringed while the inner ones are pale green and tightly folded. The head can be torn, shredded or sliced. The leaves do not wilt; they add "crunch" to a salad. The butterhead, or Boston, lettuce has a smaller, softer head than iceberg lettuce. It has delicate leaves, of which the outer are green and the inner light yellow with a buttery texture - whence its name.

The romaine or cos lettuce has an elongated head with long stiff leaves which are usually medium-dark to dark green on the outside and greenish white near the centre. Its more pungent flavour adds a tang to tossed salad. Asparagus lettuce has narrow leaves and a thick succulent edible stem.

All four varieties of lettuce are admitted into Canada under the tariff item providing for lettuce. This item has also, on occasions, been applied to vegetables described as Chinese lettuce, which are also called Chinese cabbage (Brassica pekinensis, B. chinensis and other species of the genus Brassica). These species, which are understood to have also been admitted as cabbages and as vegetables, n.o.p., are more closely related to cabbage than to lettuce and are dealt with in the section of this chapter relating to cabbage; they are not further considered in this section but it should be noted that their admission under the lettuce item tends to distort the import statistics.

GROWING AND HARVESTING

Lettuce thrives on low-acid or high alkaline soils, preferably with a pH of 6.0 or higher. Growers prefer cool, lowland, muck soils to warmer and drier upland soils because lettuce is a cool weather crop, growing best in early spring or fall when there is

abundant sunlight, cool nights and an ample supply of moisture. Sudden moisture changes can cause the development of large puffy heads rather than firm solid heads. High temperatures cause bolting or early seed-stalk development and impart a bitter flavour to the lettuce, resulting in an inferior quality product. These growing requirements restrict the time and areas where lettuce production can be profitably undertaken in Canada. On the other hand, there are areas in the southwestern United States, particularly in California and Arizona, which have alkaline soil and average temperatures (20°C in summer and 10°C in winter) which are ideal for growing lettuce on a year-round basis.

In Canada, there are only a few widely separated areas in a relatively narrow corridor of the southern part of the country where lettuce can be grown commercially. While there is some acreage sown in most of the provinces, there are really only three areas with significant production. These are the lower Fraser Valley in British Columbia, which has a steady, cool climate, not unlike the best lettuce-producing areas in California, and the muck soils of both the Bradford (Holland Marsh) area in Ontario, and the St. Martin-L'Assomption area in Quebec.

The production of lettuce has long been a labour-intensive operation. Plants are usually sown at intervals of two weeks to ensure a continuous supply. The initial crop is normally started indoors and transplanted to the field by hand; later crops are field seeded directly. Direct seeding in rows 1 foot apart demands that plants be thinned promptly to avoid crowding which checks growth. Thinning is done about fourteen days after seeding, when the first true leaves have formed. Plants are thinned to a distance of 6 inches between plants. Traditionally this has involved hard, back-breaking and costly labour. However, there have been some improvements in techniques in the recent past. The introduction of seed coating in 1971 with, first, a clay substance, and later a vermiculite, has made possible the precision seeding of thin stands of lettuce with a consequent reduction in thinning costs. Precision seeding involves the placing of each seed singly in the ground according to a pre-arranged system of holes in the belt of the seeder. With precision seeding, and the virtual elimination of the usual competitive stress for nutrients under the traditional random seeding method, plants grow much better and yield more uniform heads of lettuce. It should also be mentioned that the process itself contributes to the production of uniform quality heads; by sorting and selecting the size of seed before coating with the water-soluble substance, it is possible to ensure high yields of heads uniform in size and quality.

Lettuce matures quickly and has to be picked promptly or destroyed; unpicked or overmature plants are very susceptible to certain viruses which spread to the younger plants. Lettuce is harvested by hand and, once picked, has to be brought to market within a relatively short span of time since it is highly perishable and not amenable to storage. Vacuum cooling at about 1°C has prolonged a crisp, fresh appearance for up to two weeks in storage. All major lettuce-producing areas in Canada now have vacuum coolers to safeguard their products which, under normal farm storage conditions, would soon wilt and soften and become unmarketable.

Virtually all the lettuce grown commercially in Canada is crisphead. Other types, such as leaf lettuce, are grown in greenhouses but constitute a very small part of overall production. There are two main types of crisphead generally grown in Canada, the Great Lakes and the Imperial, with the former being more common than the latter. They differ in leaf colour, texture and shape of leaf margins. Imperial heads, of the type usually imported from California, are medium green, delicate-leafed, crinkled with complete margins, and of a quality considered good to excellent. On the other hand, the Great Lakes crispheads of which the Fulton variety is best known, are generally dark green with thick, crisp and tough cut-leaf margins. They form extremely firm, heavy, and mostly exposed heads which are slow-bolting and somewhat resistant to tipburn, a disease associated with high temperatures. Given Canadian growing conditions, where temperatures fluctuate and often become quite high, and where the nights are not always cool, the slow-bolting Fulton variety is usually preferred by producers to other varieties. However, the quality is only rated fair as its texture is generally coarser and tougher than that of the Imperial types.

One of the major difficulties facing the Canadian industry is the susceptibility of all the popular crispheads, including the Great Lakes type, to tipburn. It does not appear feasible to contemplate breeding a more tipburn-resistant strain since textural quality has to be sacrificed in the form of a tougher type of wrapper leaf; it appears that the present, relatively coarse, Great Lakes types are already on the borderline of public acceptance.

The characteristics of this industry appear to make lettuce farming a particularly precarious business, especially in a country which experiences relatively long, harsh winters and sudden temperature changes between summer and the contiguous spring and fall seasons. This is an industry which, in spite of certain improved techniques, is still fairly labour-intensive although the agriculture labour force has been declining for a number of decades; it grows a crop that is very sensitive to weather changes and prone to disease, and which, once harvested, is highly perishable.

ACREAGE, PRODUCTION AND FARM VALUE

As shown in Table 1, Canadian lettuce production has increased notably during the 1970s. Although, particularly in Quebec, production declined substantially in 1972 due to poor growing conditions, average annual output in 1971-74 was 67.7 million pounds. This average compares with 57.6 million pounds in 1961-65 and 56.2 million pounds in 1966-70.

Quebec, Ontario, and British Columbia, comprising 95-96 per cent of the lettuce-growing acreage, account for 96-98.5 per cent of total Canadian lettuce production. Particularly noteworthy has been the phenomenal growth in lettuce output in British Columbia from an average of about 8 million pounds during 1961-65 to 18.4 million pounds in 1971-74. On a comparable basis, Quebec's production increased from about 21 to 25 million pounds, although it was as high as 35 million pounds in 1971 and as low as 18 millions the next year. Over the same period, Ontario production declined from about 26.5 to 22.6 million pounds. Manitoba's decline was even more pronounced as average production fell from 926,000 pounds to 76,000 pounds. In the Maritimes, annual production has remained unchanged between the periods 1961-65 and 1971-74. Manitoba and the Maritimes represent a relatively small part of total lettuce production.

Table 1: Lettuce: Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound,
by Province, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Maritimes	160	204	170	160	200	190	180	+ 12.5
Quebec	2,446	2,468	2,930	3,010	2,930	3,020	2,972	+ 21.5
Ontario	1,734	1,638	1,500	1,520	1,370	1,310	1,425	- 17.8
Manitoba	104	40	30	20	20	20	23	- 77.9
B.C.	482	570	600	610	620	640	618	+ 28.2
Canada	4,926	4,920	5,230	5,320	5,140	5,180	5,218	+ 5.9
- Production, '000 lb. -								
Maritimes	1,192	1,367	1,024	1,167	1,594	1,008	1,198	+ 0.5
Quebec	21,134	22,578	34,867	17,759	21,975	26,576	25,294	+ 19.7
Ontario	26,506	20,093	20,985	20,488	24,058	24,990	22,630	- 14.6
Manitoba	926	329	105	70	70	60	76	- 91.8
B.C.	7,806	11,784	16,713	14,822	22,278	19,908	18,430	+136.1
Canada	57,564	56,151	73,694	54,306	69,975	72,542	67,629	+ 17.5
- Average Yield, lb. -								
Maritimes	7,450	6,701	6,024	7,294	7,970	5,305	6,656	- 10.7
Quebec	8,640	9,148	11,900	5,900	7,500	8,800	8,511	- 1.5
Ontario	15,286	12,267	13,990	13,479	17,561	19,076	15,881	+ 3.9
Manitoba	8,904	8,225	3,500	3,500	3,500	3,000	3,304	- 62.9
B.C.	16,195	20,674	27,855	24,298	35,932	31,106	29,822	+ 84.1
Canada	11,686	11,413	14,091	10,208	13,614	14,004	12,961	+ 10.9
- Farm Value, \$'000 -								
Maritimes	93	163	157	167	286	186	199	+114.0
Quebec	776	1,092	1,384	835	1,516	1,595	1,333	+ 71.8
Ontario	1,306	1,307	1,408	1,540	2,005	2,531	1,871	+ 43.3
Manitoba	48	30	9	6	6	5	7	- 85.4
B.C.	354	690	1,033	969	1,470	1,460	1,233	+248.3
Canada	2,577	3,282	3,991	3,517	5,283	5,777	4,642	+ 80.1
- Farm Value, ¢ per lb. -								
Maritimes	7.8	11.9	15.3	14.3	17.9	18.5	16.6	+112.8
Quebec	3.7	4.8	4.0	4.7	6.9	6.0	5.3	+ 43.2
Ontario	4.9	6.5	6.7	7.5	8.3	10.1	8.3	+ 69.4
Manitoba	5.2	9.1	8.6	8.6	8.6	8.3	9.2	+ 76.9
B.C.	4.5	5.9	6.2	6.5	6.6	7.3	6.7	+ 48.9
Canada	4.5	5.8	5.4	6.5	7.5	8.0	6.9	+ 53.3

Source: Statistics Canada.

The acreage devoted to lettuce growing in Canada has remained remarkably stable over the past 20 years, being 5,200 acres in 1954-56⁽¹⁾ compared to 5,218 acres in 1971-74. There were, however, variations in the intervening years as cultivated land declined by about 300 acres in the sixties to an average of 4,926 acres in the 1961-65 period and 4,920 in the second half of the decade. At the beginning of the current decade, lettuce acreage had returned to the level existing during the fifties.

Regionally, between 1961-65 and 1971-74, there has been a decline in the importance of Ontario as a lettuce producer and a strengthening in the position of Quebec and British Columbia. In 1971-74 Quebec had 526 acres more under lettuce than the average for 1961-65; British Columbia had 136 acres more. On the other hand, during the same period, the Ontario acreage declined by about 300 acres. As a result of these shifts, Quebec had 57 per cent of Canada's lettuce producing acreage in 1971-74, Ontario, 27 per cent and British Columbia, 12 per cent. These three provinces together account for 95-96 per cent of lettuce-growing farmland in Canada.

The average yield per acre for total lettuce production amounted to 14,004 pounds in 1974 and, despite the poor performance in 1972, averaged 12,961 pounds for the four-year period 1971-74, well above the Canadian average for the 1960s, 11,500 pounds. Most of this improvement in productivity was the result of the increase in yields in British Columbia, from 16,195 pounds in 1961-65 to 20,674 pounds in 1966-70 and to an average of 29,822 pounds during 1971-74. Yield per acre in the other producing regions either changed little over the period under review or declined.

British Columbia lettuce yields were three and one-half times greater than the yield in Quebec and nearly double the average yield achieved in Ontario in 1971-74. They were about 20 per cent greater than those in the productive California growing areas, (see Appendix Table 12).

The total value of the lettuce crop nearly doubled during the period 1961-65 to 1971-74, reaching a total of \$4.6 million in 1974. While Quebec's share of the total value of production has remained comparatively stable at about 30 per cent, farmers in British Columbia doubled their share from an average of 14 per cent in the 1961-65 period to roughly 27 per cent in 1971-74, and Ontario's share declined from slightly more than half to about 40 per cent over the same time period.

The average farm value per pound, i.e., the average return to the producer, averaged 6.9 cents per pound in 1971-74 compared to 4.5 cents in 1961-65, an increase of 53 per cent. Farm values are markedly higher in the Maritimes, 16.6 cents per pound, and are lowest in Quebec and British Columbia, 5.3 and 6.7 cents per pound, respectively. Between the periods 1961-65 and 1971-74, farm returns per pound rose most rapidly in the Maritimes where such returns more than doubled.

(1) Tariff Board Report on Reference No. 124 - Fruits and Vegetables, Queen's Printer, Ottawa, 1957, p. 193.

Gross returns per acre of lettuce vary widely from one growing area to another and have increased greatly since the early sixties, reflecting differences in yields and average returns to producers. Gross returns per acre are highest and have increased most in British Columbia, rising from \$734 per acre during 1961-65 to \$1,995 in 1971-74. Ontario producers grossed \$1,313 in 1971-74, nearly twice as much as the average for 1961-65. The lowest increase in gross returns per acre were realized by Quebec lettuce growers; recorded statistics for Manitoba indicate a decrease in gross returns per acre.

SUPPLY AND DISPOSITION

The Board is not aware of any significant volume of lettuce exports; such data as are available suggest that less than 1 per cent of Canadian production has been exported to the United States in recent years. Virtually the entire supply of lettuce, both produced and imported, is consumed domestically. Moreover, it would appear from available information that only small amounts of lettuce are processed commercially (e.g., into mixed vegetable juices). In effect, lettuce is a fresh market product only.

Total consumption of lettuce averaged 372.8 million pounds during the four-year period 1971-74, well above the average annual consumption for 1961-65 and 1966-70 of 248 million and 305 million pounds respectively (see Table 2). Consumption of lettuce has increased at a faster pace than the growth in Canada's population with per capita consumption arising from an average of 12 pounds in 1954 to 13 pounds in 1961-65 and to 17 pounds for the period 1971-74.

Table 2: Lettuce: Supply and Disposition, Canada,
1961-1974

<u>Year</u>	<u>Production</u>	<u>Imports</u>	<u>Total Canadian Consumption</u>	<u>Imports as % of Consumption</u>
- thousand pounds -				
Average 1961-65	57,564	190,439	248,003	76.8
Average 1966-70	56,151	248,361	304,512	81.6
1971	73,694	265,220	338,914	78.3
1972	54,306	298,129	352,435	84.6
1973	69,975	313,653	383,628	81.8
1974	72,542	343,862	416,404	82.6
Average 1971-74	67,629	305,216	372,845	81.9
% Change 1961-65 to 1971-74	+17.5	+60.3	+50.3	

Source: Statistics Canada.

Imports averaged 121 million pounds, or 67 per cent of total consumption, in 1954-56; they rose to 190 million pounds or 77 per cent during the period 1961-65 and 248 million pounds or 81.6 per cent in 1966-70. No further inroads into the Canadian market took place during the four years, 1971-74, with imports supplying 81.9 per cent of consumption. Consequently, whereas Canadian production accounted for 33 per cent and 23 per cent of Canadian lettuce consumption in 1954-56 and 1961-65 respectively, it represented only 18.1 per cent in 1971-74.

Production is concentrated almost entirely during the five-month period, June to October (see Appendix Table 2). Except for small volumes of very early and very late field lettuce and greenhouse lettuce, there are no domestic supplies available during the period November to May. Imports of lettuce, during this off-season period, account for close to 100 per cent of domestic consumption (see Appendix Table 3) and therefore do not at that time compete with locally produced lettuce.

As presented in Table 3 below, off-season imports have risen steadily, from 93.4 million pounds in 1954-56 to 214.9 million pounds in 1971-74. A considerable import rise has also occurred during the five-month, on-season period when imports compete with domestically grown lettuce. During the June-October months, imported lettuce accounted for 32.3 per cent of Canadian lettuce consumption in 1954-56; this rose to 46.4 per cent by 1961-65 to 54.1 per cent in 1966-70 and to 57.7 per cent for the 1971-74 period.

Domestic consumption during June-October comprised, on average, 42.0 per cent of total annual consumption in 1971-74, compared with 39.2 per cent in 1966-70. Canadian lettuce production has been increasingly concentrated in the months of July, August, and September, 79.3 per cent in 1971-74 in contrast to 75.7 per cent in 1966-70.

According to 1974 unload information, the interprovincial movement, or disposition, of lettuce consists mainly of shipments by British Columbia producers to markets in the Prairie region. There is also a small movement of this product from Ontario to Maritime consuming centres and from Quebec into Ontario. Only a small proportion of domestic lettuce production is involved in interprovincial shipment. While British Columbia producers market some 30 per cent of provincial production in the Prairie Provinces, Ontario and Quebec sell only about 3 per cent of their production in other provinces.

Table 3: Lettuce: Production, Imports and Consumption,
Selected Averages, 1954-1974

	<u>1954-56</u>	<u>1961-65</u>	<u>1966-70</u>	<u>1971-74</u>
- thousand pounds -				
Production				
On-season ^(a)	58,782	55,198	54,745	66,214
Off-season ^(b)	<u>1,199</u>	<u>2,366</u>	<u>1,406</u>	<u>1,415</u>
Total	59,981	57,564	56,151	67,629
Imports				
On-season ^(a)	27,997	47,695	64,547	90,278
Off-season ^(b)	<u>93,386</u>	<u>142,744</u>	<u>183,814</u>	<u>214,938</u>
Total	121,383	190,439	248,361	305,216
Consumption				
On-season ^(a)	86,779	102,893	119,292	156,492
Off-season ^(b)	<u>94,585</u>	<u>145,110</u>	<u>185,220</u>	<u>216,353</u>
Total	181,364	248,003	304,512	372,915
Imports as % of Consumption				
On-season ^(a)	32.3	46.4	54.1	57.7
Off-season ^(b)	98.7	98.3	99.2	99.3
Total	66.9	76.8	81.6	81.9

(a) June-October growing season.

(b) January-May, November-December.

Source: Derived from Statistics Canada data.

IMPORTS

Canada imported an annual average of 305 million pounds of lettuce during the period 1971-74, between four and five times as much as it produced domestically. These imports have increased steadily and continuously from an average of 121 million pounds during the period 1954-56, to 190 million pounds during 1961-65 and 248 million pounds in 1966-70.

The bulk of the imports enter during the November-May period when Canadian consumers are almost entirely dependent on foreign supplies. Imports during the June-October period, the Canadian production season, represented on average about 30 per cent of total imports during the 1971-74 period. Imports during the production season have become a larger proportion of the annual total, as June-October imports accounted for an average of 26 per cent of total yearly imports during the years 1966 to 1970. Imports during the months July-September, the peak production period, have since 1966 remained the same as a proportion of annual imports, about 9 per cent. This indicates that the more rapid increase in imports has occurred in the shoulder months of the Canadian production season, June and October. During the period 1971-74 these two months comprised respectively 11.9 and 8.7 per cent of total imports, in contrast to 10.6 and 6.7 per cent during 1966-70.

Almost all lettuce imports, 99.9 per cent, come from the United States (see Appendix Table 4). Small shipments have been imported from time to time from Mexico and the Netherlands. California and Arizona are the main U.S. sources of Canadian lettuce imports; in 1974 the former supplied 73.6 per cent and the latter 19.3 per cent of total Canadian imports. The remaining imports (7.1 per cent of the total) come from Florida, New Mexico, New Jersey and other U.S. producing areas.

During the period 1971-75, the central region of Canada (Ontario and Quebec) accounted for 65.9 per cent of total Canadian lettuce imports, the western region, comprising the Prairie Provinces and British Columbia, for 29.6 per cent and the Atlantic region for the remaining 4.5 per cent (see Appendix Table 5). The western region received its supplies almost entirely from California. California is less prominent in supplying the Maritime and central regions, but nonetheless accounted for some 64 per cent of imports into the Maritime and central regions in 1974; Arizona was the next important source with 26 per cent.

PRICES

As previously indicated, the annual average return per pound to the Canadian lettuce grower has increased steadily from an average of 4.5 cents in 1961-65 to an average of 5.8 cents per pound in 1966-70 and to 6.9 cents in 1971-74. In 1974, growers in the Maritimes received 18.5 cents per pound, in Manitoba 8.3 cents, in Ontario 10.1 cents, in Quebec 6.0 cents and in British Columbia 7.3 cents.

Wholesale-to-retail selling prices for domestically produced lettuce in 1974 showed wide variations, as shown in the following table.

Table 4: Variation in Wholesale to Retail Selling Prices for Domestic and Imported Lettuce in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, June 7 to October 13, 1974

	<u>Halifax</u>	<u>Montreal</u>	<u>Toronto</u>	<u>Winnipeg</u>	<u>Vancouver</u>
	- range in cents per pound -				
Domestic lettuce					
June 7 to					
October 11	20.3 to 14.0	10.5 to 6.1(a)	11.0 to 5.8(a)	15.1 to 11.0	15.3 to 10.8
Imported lettuce					
June 7 to					
October 11	25.6 to 14.9	20.7 to 10.8	19.2 to 12.8	20.9 to 13.8	18.6 to 17.7

(a) Based on cartons containing 18 heads weighing 43 pounds; all other prices based on cartons containing 24 heads weighing 43 pounds.

Source: Appendix Tables 8a and 8b.

The highest prices were usually obtained for a brief period for early lettuce while during the peak production period the wholesale price tended normally toward the lower end of the range shown.

The level of the range of wholesale to retail prices at each of the various markets conforms in general to the regional differences in average returns to the farmer. Wholesale prices are highest in Halifax, followed by Winnipeg, Vancouver, Toronto, and Montreal in descending order. Toronto and Montreal wholesale prices appear to be lower, relative to those in British Columbia, than the average return to the farmer would suggest, because wholesale prices there were based on cartons of 18 "untrimmed" heads weighing 43 pounds while the other market quotations are based on cartons with 24 "trimmed" heads, also weighing 43 pounds. Lower quotations apply to the untrimmed heads which comprise more waste for the retailer.

More important, Table 4 shows that during the Canadian production season, wholesale to retail prices of imported lettuce available on these markets range well above those for domestic lettuce. The fact that imports of lettuce have been rising during the Canadian growing season, indicates that this product is fully competitive, even at a premium price, largely because of quality difference. Moreover, the frequency of price quotations for imported lettuce during June-October (see Appendix Tables 8a and 8b) indicates that imported produce is available in substantial quantities during the entire Canadian production season in Halifax and Winnipeg; in both cases local supplies are relatively small, and in the case of Manitoba have been declining as well. In Montreal and Toronto, imported lettuce was reported during all of the production season except for a three-week and a nine-week period, respectively. In British Columbia, however, apparently plentiful supplies of quality lettuce were successful in keeping out imported lettuce; price quotations for imported lettuce were reported at Vancouver for a total of only five weeks, at the beginning of the production season.

An examination of the more detailed price information in Appendix Tables 8a and 8b shows that in 1974 wholesale prices of imported lettuce displayed the same pattern as the prices of domestic lettuce, namely high prices when domestic supplies first came on the market and a gradual lowering when domestic supplies increased. Moreover, as soon as domestic lettuce disappeared off the market, wholesale prices of imported lettuce increased, in the case of Halifax from 16.3 cents to 23 cents, in Montreal from 15.4 to 22.1 cents, in Toronto from 17.4 to 23.3 cents, and in Vancouver from 17.9 to 24.1 cents.

The information collected by the Board with respect to the landed cost of imported lettuce at various Canadian market centres, and its main components, is summarized in Table 5 for the period in which duty is applicable; the more complete cost data on which this table is based can be found in Appendix Tables 9 and 10. The cost of the duty paid by the importer is both the smallest and most stable component of the total landed cost. Freight, brokerage and other transportation costs combined are a much more important factor in the landed cost of imported lettuce than the cost of the duty and offers much more protection to domestic lettuce growers than the duty. The proportion of total landed cost accounted for by these cost items ranged in 1974 from around 25 to 45 per cent for lettuce imported in Toronto, from 20 to 50 per cent in Montreal and Winnipeg, and around 40 per cent in Vancouver.

Table 5: Average Landed Cost of Imported Lettuce in Toronto, Montreal, Winnipeg and Vancouver, Dutiable Periods, 1972-1974

		<u>Cost f.o.b.</u>	<u>Freight Brokerage etc.</u>	<u>Duty</u> ^(a)	<u>Total Landed Cost</u>
- range in cents per pound -					
Toronto	1972	3.7-10.5	2.6-5.1	0.9-1.2	8.6-15.2
	1973	5.7-17.1	3.5-5.3	0.9-1.0	10.7-22.0
	1974	5.8-12.0	1.6-6.4	0.9-1.4	11.0-17.0
Montreal	1974	5.2-10.5	1.1-6.3	0.9-1.0	11.5-14.7
Winnipeg	1974	4.9-12.4	4.7-6.2	1.0	11.2-18.9
Vancouver	1974	5.5-12.4	3.1-5.6	1.0	9.7-16.7

(a) May include an additional 5 p.c. duty on lettuce imported in packages, five pounds or less, each.

Source: Appendix Tables 9 and 10.

The data collected for 1972, 1973, and 1974 for the Toronto market indicate that freight, brokerage and other transport costs have increased over the period in absolute terms. The f.o.b. cost of imported lettuce has, however, risen faster than the freight cost. The degree of protection provided by freight, brokerage and other transport costs, has therefore tended to decline even though in absolute terms these costs have been increasing.

The fluctuations in the f.o.b. cost of imported lettuce account for most of the changes in the total landed cost. Since the cost of freight, brokerage, and duty, are more stable these costs offer a higher degree of protection for domestic lettuce growers when the f.o.b. cost of imported lettuce is lower.

CANADA-UNITED STATES COMPARISONS

Lettuce production in the United States totalled over 5 billion pounds in 1974. Canadian lettuce production in that year amounted to 72.5 million pounds or less than 1.5 per cent of the U.S. output. U.S. production increased from an average of 3.9 billion pounds in 1961-65 to an average of 4.9 billion pounds in 1971-74, an increase of 27 per cent; this compares with an increase of 18 per cent in Canadian lettuce production over that period. Clearly in the North American context, Canada is very much a marginal producer of lettuce and the return to Canadian growers can be influenced greatly by excess supply conditions in the United States.

Average yields in 1974 in the United States amounted to 22,539 pounds per acre, well above the average of 14,004 pounds recorded in Canada in that year. California and Arizona, the main sources of Canadian lettuce imports, and which accounted for 71 and 17 per cent of total U.S. lettuce production, had average yields of 24,182 and 19,797 pounds respectively. Only British Columbia growers, with a yield of 31,106 pounds in 1974, and producing about 27 per cent of all Canadian lettuce, compare favourably with these two states. New Jersey producers, who supply Canada during the Canadian production season had an average yield of 17,516 pounds per acre in 1974, comparable to the yield of 19,076 pounds in Ontario, but at least double the average yield in Quebec and the Maritimes.

The Board also examined cost data respecting lettuce production in the United States and Canada (see Table 6). Information was obtained for four counties in California (Imperial, Ventura, Monterey and Contra Costa) and for Arizona and New York. The U.S. data refer to costs in 1972, 1973 or 1974. Canadian production costs were obtained on a roughly comparable basis for Ontario for 1974 only. The information is based on the operations of a small number of selected producers in each area and are, of course, not necessarily an accurate reflection of average production conditions; for instance the average domestic lettuce producer realized a yield per acre of 19,076 pounds in Ontario while producers in the sample reporting costs of production achieved a yield of 30,000 pounds. Another limitation is that the data for each area are for one year only, and not the same year for all areas. Moreover, it should be acknowledged that the data are not strictly comparable. Pre-harvest or cultivation costs, and harvesting costs per acre were probably collected on the same basis; the higher harvesting costs for New York and Ontario are in part explained by the larger yields. However, the overhead costs are probably calculated on a different basis; in the case of Ontario, land charges were estimated at 10 per cent of the current cost of acquiring an acre of land in the Holland Marsh. Land charges in the four counties of California are based on the rental value of an acre of land for one crop; this would be considerably less than 10 per cent of the current value of that acre of land. It would seem reasonable to assume that land charges, calculated on the same basis, would at least be the same in California as in Holland Marsh, and probably in Arizona as well. Consequently overhead costs, and hence total per acre costs, are understated for California and Arizona relative to Ontario.

Nevertheless, the available data do indicate a number of interesting factors. First, it would appear that pre-harvest or cultivation costs per acre (costs which are largely independent of the yield per acre) are lower in California and Arizona than in Ontario and New York. This may be due to continuous cropping (i.e., two or more crops); the cultivation practices need not be as intense for each crop as in Ontario and in New York with one crop. Overhead costs per acre, another cost which does not vary significantly with the yield, are also lower than in Ontario and New York, even allowing for the element of incomparability (i.e., in land costs) discussed above; this would seem to be due in large part to a two-crop economy in California and Arizona.

Table 6: Lettuce: Production Costs in Ontario and United States Growing Areas

	Imperial 1973	Ventura 1973	Monterey 1973	Contra Costa 1972	Arizona 1972	New York 1974	Ontario 1974
Yield, lb.	23,400	22,500	25,615	25,850	24,000	37,600	30,000
- dollars per acre -							
Pre-harvest or cultivation costs	381.68	203.02	315.91	350.93	261.25	490.86	469.62
Harvesting and marketing costs	700.00	820.00	763.00	770.00	750.00	1,440.00	897.90
Overhead Costs							
Land charges (a)	90.00	80.00	90.00	93.75	40.25	126.00	395.00
Other overhead	47.16	46.64	63.11	96.76	..	215.34	53.95
Total	137.16	126.64	153.11	190.51	40.25	341.34	448.95
Total Costs	1,218.84	1,149.66	1,232.02	1,311.44	1,051.50	2,272.20	1,816.47
Total Costs ¢/lb.	5.21	5.11	4.81	5.07	4.38	6.04	6.05

(a) Land charges for the 4 California counties, and for Arizona, are on a single crop basis although 2 or 3 crops may be grown annually.

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

Harvesting costs per acre, of course, tend to vary directly with the volume harvested, but appear not to be very dissimilar between Ontario and California and Arizona on a per pound basis.

The higher per acre pre-harvest and overhead costs in Ontario have an adverse effect on costs of production per pound, especially when the average yield per acre is 19,076 pounds per acre, a level much lower than the 30,000 pounds used in the sample in Table 6, and well below the 1974 average for California of 24,182 pounds. For example, the cost of production per pound of lettuce in Ontario in 1974 with a yield of 30,000 pounds is estimated at 6.05 cents. With a yield of 19,076 pounds, after adjusting the harvesting costs per acre in proportion to the lower yield, the cost per pound would be 7.8 cents. Likewise, assuming that the British Columbia cost structure is similar to that of Ontario, the average British Columbia yield of 31,106 pounds in 1974 would result in costs of production per pound of 5.9 cents. In the case of British Columbia, the higher pre-harvest and overhead costs per acre relative to California are compensated for by the higher yield, so that the unit cost of production of British Columbia growers would compare somewhat more favourably with California costs than do those of Ontario growers.

This is confirmed by a comparison of the average farm values per pound of lettuce in the major producing areas of the two countries. It would appear reasonable to assume that changes in average farm values per pound are an indication of changes in production costs, especially in the long run. As demonstrated by the following table, the average return to farmers in Ontario in 1972, 1973, and 1974 was higher than the average return in both California and Arizona, Canada's main sources of imported lettuce. Similarly, the return to British Columbia growers normally appears to exceed the return to producers in California, their sole import competition.

Table 7: Average Farm Value per Pound of Lettuce, Canada and the United States Main Producing Areas, 1961-1974

	<u>1961-65</u>	<u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
	- cents per pound -					
Canada	4.5	5.8	5.4	6.5	7.5	8.0
Quebec	3.7	4.8	4.0	4.7	6.9	6.0
Ontario	4.9	6.5	6.7	7.5	8.3	10.1
British Columbia	4.5	5.9	6.2	6.5	6.6	7.3
United States	4.2	5.0	6.3	5.7	7.4	6.9
California	-	-	5.8	5.3	7.4	6.8
Arizona	-	-	7.6	7.1	6.9	6.5

Source: Statistics Canada; U.S. Department of Agriculture.

The return to lettuce growers in Quebec, 6.0 cents in 1974, continues to be lower than the return to U.S. producers. This is an indication of the lower cost of farm labour and land use.

It should be recalled that, in those instances where production costs per pound favour U.S. producers, such an advantage may be more than offset by the cost of freight, brokerage, and the duty on imported lettuce, during the Canadian growing season. This applies of course only to the peak production period when prices in Canada approach their seasonal lows, and to the relatively low-cost producing areas of Quebec, Ontario, and British Columbia. Imports have made inroads during the beginning and the closing weeks of the Canadian production season when domestic supplies are limited and prices are at their seasonal highs.

TARIFF CONSIDERATIONS

All lettuce entering Canada is classified under tariff item 8715-1. The tariff item is currently as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Lettuce per pound	Free	.85 ct. or Free	.85 ct. or Free

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 26 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty is not in effect.

When subject to specific rates of duty and imported in packages five pounds or less, each, see additional duty following item 8731-1.

Lettuce is imported into the United States under tariff item 136.60 under Part 8. (Vegetables) - Subpart A. - Vegetables, Fresh, Chilled or Frozen:

	<u>Col. 1</u>	<u>Col. 2</u>
Lettuce:		
Item 136.60 If entered during the period from June 1 to October 31, inclusive, in any year	0.4¢ per lb.	2¢ per lb.
Other	2¢ per lb.	2¢ per lb.

The Canadian Horticultural Council proposed an increase in the specific duty from .85 cent to $1\frac{1}{2}$ cents per pound under both the Most-Favoured-Nation and General Tariff, with a minimum rate of 15 p.c. and a reduction of six weeks in the period of application of the specific seasonal duty. When the specific duty is not in effect, lettuce would continue to enter free of duty. It was also proposed that the additional duty on pre-packaged lettuce be raised from 5 p.c. M.F.N. to 10 p.c. M.F.N. This proposal relating to the additional duty on pre-packaged lettuce is considered elsewhere in this report.⁽¹⁾

The more general representations by the Consumers' Association of Canada, the National Farmers Union, and the Canadian Importers Association Inc., would also apply to lettuce.

The present tariff on lettuce has been in effect since 1959 when the additional duty on pre-packaged lettuce was introduced. As the following table shows, free entry has always characterized the B.P. Tariff rate, while the relatively high pre-war rates, applicable to both the M.F.N. and Gen. schedules, have declined significantly. The M.F.N. rate, for example, fell from a rate of $27\frac{1}{2}$ p.c. in 1935 to 10 p.c. in 1939; it was changed in 1948 to a seasonal specific duty of 1 cent per pound and applicable for 18 weeks, and remained at 10 p.c. for the rest of the year. This lasted until 1956 when the specific duty was reduced from 1 cent to .85 cent per pound, while retaining the 10 p.c. rate during the remainder of the year. In 1959, the seasonal period was extended to 26 weeks from 18 weeks and the ad valorem off-season duty was discontinued.

The Gen. rate was 30 p.c. up until 1950, with a provision that the duty could not be less than $1\frac{1}{2}$ cents per pound during the period April 1 to October 31. In 1950 the Gen. rate was made the same as the M.F.N. rate but the Gen. rate of 1 cent per pound was retained in 1956 when the M.F.N. duty was changed to .85 cent per pound. In 1959 the Gen. rate was restored to equivalence with the M.F.N. rate at .85 cent per pound for 26 weeks and Free for the other half of the year.

The length of application of the seasonal specific duty has varied from year to year and from one tariff region to another. Table 12 in the appendix depicts the experience from 1966 to 1975. At no time during this period has the seasonal duty been applied for the full 26 weeks. In the western region where the growing season can be the longest, the most number of days between the application and removal of the seasonal specific duty, in the last 10 years, was 163 out of a possible 182 days; that was in 1969. In the five succeeding years the number has declined, to 134 in 1973 and 1974 and 137 in 1975. Comparable data for the central region show a high of 155 days in 1966, declining to 130 days in 1970 and then further to 115 days in 1975. In the Maritime Provinces the longest period of duty application has been 98 days, in 1971. In the last three years, as was also the case in 1969, the seasonal duty was not applied at all. It would appear, therefore, that this experience is in line with the proposal of The Canadian Horticultural Council to reduce the period of application by six weeks, or 42 days.

⁽¹⁾ Volume 1, Part I, pp. 131-135.

Table 9: Lettuce: Rates of Duty for Selected Periods, Per Cent or Cent per Pound

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. (a)(b)
1936-1938	Free	15 p.c.	30 p.c. (a)
1939-1947	Free	10 p.c.	30 p.c. (a)
1948-1950 (May 31)	Free	1 ct. (18 weeks) (c) 10 p.c.	30 p.c. (a)
1950 (June 1) - 1956 (June 29)	Free	1 ct. (18 weeks) 10 p.c.	1 ct. (18 weeks) 10 p.c.
1956 (June 30) - 1959 (Apr. 9)	Free	.85 ct. (18 weeks) 10 p.c.	1 ct. (18 weeks) 10 p.c.
April 10, 1959	Free	.85 ct. (26 weeks) (d) Free	.85 ct. (26 weeks) (d) Free

(a) Not less than 1½ cents, April 1-October 31.

(b) Imports from the United States were subject to the General Tariff until December 31, 1935.

(c) Not applied until 1950-51.

(d) Effective April 10, 1959, packages five pounds or less, each, are subject to an additional duty of 5 p.c. M.F.N., 10 p.c. Gen.

Source: Canadian Customs Tariff.

The proportion of imports subject to duty has tended to decline since the mid 1960s (see Appendix Table 13). In 1966, 23 per cent of the imported volume was subject to duty as against 17 per cent in 1975. During the 1966-70 period, on average, 17 per cent of imports were subject to duty versus 15 per cent during 1971-75. The drop in the proportion of total annual lettuce imports being dutiable reflects to some extent the reduction in the number of days during which the seasonal duty was applied.

The ad valorem equivalent of the specific duty has declined as the f.o.b. price of lettuce has increased. For the period 1966-70, the average f.o.b. price was 5.3 cents per pound and the specific duty of .85 cent per pound, was equivalent to 16.0 p.c. In 1975, the ad valorem equivalent had dropped to 12.0 p.c. on the basis of an f.o.b. price of 7.1 cents per pound. A specific duty of 1½ cents, as proposed by the Horticultural Council, on the 1975 f.o.b. value of imported lettuce would be equivalent to 21.1 per cent. A specific duty of 1½ cents per pound would be equivalent to the 15 per cent ad valorem recommended by the Council when dutiable lettuce reaches 10 cents per pound.

The adoption of the proposal of the Horticultural Council of a specific duty of $1\frac{1}{2}$ cents per pound would increase the rate by 0.65 cent per pound from the current rate of 0.85 cent. This can be expected to increase the cost of lettuce to the consumer, and provide additional income to government, retailers and wholesalers, and growers. On the basis of the assumptions and limitations outlined elsewhere in this report the Board has attempted to estimate these costs and benefits. The additional cost to the consumer was estimated at as much as \$1.6 million or 29 cents per family of four per year. Additional benefits to growers could reach an estimated \$464 thousand, which, at average 1974 yields, would be equivalent to \$89.59 per acre.

CONCLUSIONS

Canadian consumption of lettuce has grown continuously and steadily to a level of 416 million pounds in 1974. Ninety-nine per cent of the lettuce consumed during the months of November to May is imported, almost exclusively from the United States. These imports, in essence, do not compete with Canadian production; the two or three per cent of Canadian lettuce production produced during this period in greenhouses or as early, transplanted, field lettuce cannot be expected to expand its share of the market significantly.

Consumption of lettuce during the Canadian production period of June to October has increased proportionately even more rapidly than total lettuce consumption since 1961. Canadian production has tended to concentrate in the three months of July, August and September and the period in which specific duty has been applied for the major production regions has tended to narrow closer to those key months. There has been little variation in the level of dutiable imports in recent years. Therefore, the increased share of lettuce consumption held by imported lettuce has occurred almost entirely during the shoulder months of June and October. The increase in consumption in both the on and the off seasons indicates a change in Canadian consumer habits. Domestic growers have expanded their production over the period under review to meet at least part of the increased demand. The fact that imported lettuce comes in throughout the production season and commands a premium over domestic lettuce indicates that quality differences may be a limiting factor in assisting the competitive position of the domestic producers, despite the advantages accruing from the level and duration of specific duty, freight and brokerage charges and the perishable nature of the product. It seems likely that domestic growers will continue the trend towards concentration of their production in the less risky growing months. With the exception of British Columbia, it would appear that Canadian producers have not been able to keep up with the rapid increase in demand either in volume or quality terms.

The value of the specific duty as a percentage of the f.o.b. value of dutiable imports has experienced a continual erosion to some 12 per cent in 1974 from a level of about an average of 16 per cent in the period 1966-70.

An increase in the specific duty from the present .85 cent per pound to $1\frac{1}{2}$ cents per pound would result in an ad valorem rate equivalent of 19.7 p.c. on the basis of 1974 import prices. The Board is of the opinion that such an increase in protection would be instrumental in at least stabilizing the degree of import competition. An increased tariff could prevent a further erosion in the share of domestic consumption held by domestic producers. Furthermore, the Board also feels that the percentage value of the specific duty should not decline below 15 p.c., a point reached when the f.o.b. price of imported lettuce is 10 cents per pound. The Board also concludes that the period of application of the seasonal specific duty can be reduced from the current 26 weeks to 20 weeks, inasmuch as the duty has not been applied for more than 140 days in any of the three regions during the past four years.

No change is proposed respecting the additional duty on lettuce entering in pre-packed form; as discussed elsewhere in this Reference, the packaging duty pertaining to retail packs in general has been recommended at 5 p.c. M.F.N., and 10 p.c. Gen.

RECOMMENDATIONS

The Board recommends that the present tariff item 8715-1 be deleted from Schedule "A" of the Customs Tariff, and the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Lettuce per pound	Free	$1\frac{1}{2}$ cts. but not less than 15 p.c., or Free	$1\frac{1}{2}$ cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 20 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

Appendix Table 1

**Lettuce: Acreage and Number of Farms, by Province
and Region, 1961 and 1971**

	1961		1971		No. of Farms Reporting
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	
Atlantic Region	177	4.0	199	3.8	155
Nfld.	11	0.2	31	0.6	25
P.E.I.	12	0.3	11	0.2	14
N.S.	100	2.2	118	2.2	77
N.B.	54	1.2	39	0.7	39
Central Region	3,814	85.3	4,453	84.9	1,376
Que.	2,110	47.2	2,931	55.9	734
Ont.	1,704	38.1	1,522	29.0	642
Western Region	480	10.7	595	11.3	235
Man.	97	2.2	12	0.2	33
Sask.	15	0.3	10	0.2	27
Alta.	10	0.2	11	0.2	41
B.C.	358	8.0	562	10.7	134
Canada ^(a)	4,473	100.0	5,247	100.0	1,766

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Appendix Table 2

**Lettuce: Estimated Monthly Distribution of
Domestic Production, 1966-1974**

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
			- thousand pounds -			
Jan.	46	61	66	15	124	38
Feb.	46	75	99	61	67	71
Mar.	46	98	132	57	139	62
Apr.	92	135	33	81	320	107
May	807	551	529	468	658	549
June	8,924	8,065	11,538	5,649	9,133	5,941
July	17,180	20,627	25,920	16,350	18,754	21,483
Aug.	15,750	20,328	17,291	15,854	21,610	26,555
Sept.	9,570	12,659	14,381	11,918	10,674	13,662
Oct.	3,321	4,535	2,810	3,451	7,999	3,878
Nov.	277	389	694	234	465	161
Dec.	92	108	198	169	31	34
Total	56,151	67,629	73,694	54,306	69,975	72,542

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 3

Lettuce: Estimated Monthly Distribution of Total Supply, 1971-74 Average

<u>Month</u>	<u>Domestic Production</u>	<u>Imports</u>	<u>Total Supply</u>	<u>Imports as % of Supply</u>
- thousand pounds -				
Jan.	61	30,494	30,555	99.8
Feb.	75	27,463	27,538	99.7
Mar.	98	30,552	30,650	99.7
Apr.	135	30,530	30,665	99.6
May	551	37,694	38,245	98.6
June	8,065	36,360	44,425	81.8
July	20,627	11,618	32,245	36.0
Aug.	20,328	6,522	26,850	24.3
Sept.	12,659	9,080	21,739	41.8
Oct.	4,535	26,698	31,233	85.5
Nov.	389	29,808	30,196	98.7
Dec.	108	28,398	28,506	99.6
Total	67,629	305,216	372,845	81.9

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Lettuce: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -				
1966	217,672	-	-	217,672
1967	243,376	-	-	243,376
1968	245,208	-	-	245,208
1969	250,760	-	-	250,760
1970	284,728	63	-	284,791
Average 1966-70	248,349	13	-	248,361
1971	265,201	16	3	265,220
1972	298,113	17	-	298,129
1973	313,425	224	4	313,653
1974	343,552	273	37	343,862
1975	376,235	30	5	376,271
Average 1971-75	319,305	112	10	319,427

Source: Statistics Canada.

Lettuce: Imports by Province and Region, 1966-1975

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		-	thousand pounds	-		
Atlantic Region	10,108	10,607	12,833	13,947	15,014	19,826
Nfld.	755	663	549	205	202	64
P.E.I.	410	590	548	586	532	712
N.S.	3,638	3,062	4,216	4,441	4,690	6,012
N.B.	5,305	6,291	7,520	8,715	9,591	13,038
Central Region	161,985	172,747	198,607	212,516	226,567	241,708
Que.	75,414	81,683	95,366	101,276	107,658	117,940
Ont.	86,571	91,064	103,241	111,240	118,910	123,769
Western Region	76,268	81,866	86,689	87,190	102,281	114,736
Man.	15,592	15,657	15,600	15,926	18,351	19,291
Sask.	9,232	8,949	9,754	8,669	10,280	10,728
Alta.	24,446	27,299	28,665	28,921	34,935	42,988
B.C.	26,998	29,960	32,671	33,673	38,713	41,730
Canada	248,361	265,220	298,129	313,653	343,862	376,271

Source: Statistics Canada.

Lettuce: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
			-	thousand pounds	-			
Jan.	25,086	10.1	31,847	10.0	29,000	32,507	34,278	37,259
Feb.	25,325	10.2	27,978	8.8	22,653	29,561	33,803	30,036
Mar.	25,169	10.1	31,309	9.8	33,239	32,886	29,819	34,338
Apr.	29,798	12.0	32,031	10.0	27,165	30,045	33,626	38,036
May	30,658	12.3	37,897	11.9	36,750	37,474	44,785	38,709
June	26,371	10.6	38,791	12.1	37,743	30,113	38,545	48,518
July	10,607	4.3	13,121	4.1	14,056	8,098	15,962	19,131
Aug.	4,215	1.7	7,533	2.4	9,833	5,339	7,563	11,575
Sept.	6,628	2.7	11,045	3.5	7,798	9,658	12,461	18,905
Oct.	16,726	6.7	27,439	8.6	26,042	29,643	31,822	30,400
Nov.	22,051	8.9	30,749	9.6	28,217	38,586	29,359	34,518
Dec.	<u>25,727</u>	<u>10.4</u>	<u>29,688</u>	<u>9.3</u>	<u>25,632</u>	<u>29,743</u>	<u>31,840</u>	<u>34,847</u>
Total	248,361	100.0	319,427	100.0	298,129	313,653	343,862	376,271

Source: Statistics Canada.

Lettuce: Percentage Distribution of Fresh Market Imports from United States,
by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Arizona</u>	<u>Florida</u>	<u>New Mexico</u>	<u>New Jersey</u>	<u>Others</u>	<u>Total</u>
			-	per cent	-		
<u>1972</u>							
Maritime Region	76.7	14.6	*	1.8	5.3	1.6	100.0
Central Region	57.2	33.2	1.4	3.4	1.9	2.9	100.0
Western Region	97.0	2.9	-	-	-	0.1	100.0
Canada	69.1	24.1	0.9	2.4	1.4	2.1	100.0
<u>1973</u>							
Maritime Region	69.5	20.1	2.5	2.4	3.0	2.6	100.0
Central Region	61.5	26.8	1.7	4.3	2.0	3.7	100.0
Western Region	96.7	3.3	*	-	-	-	100.0
Canada	71.1	20.4	1.3	3.1	1.5	2.7	100.0
<u>1974</u>							
Maritime Region	69.9	16.7	3.5	1.8	2.6	5.5	100.0
Central Region	63.4	26.8	2.1	2.2	2.7	2.8	100.0
Western Region	98.4	1.3	0.2	-	-	0.1	100.0
Canada	73.6	19.3	1.6	1.5	1.9	2.1	100.0

Source: Agriculture Canada.

Lettuce: Weekly Wholesale to Retail Prices
at Halifax and Montreal, 1974

Week Ending	Halifax		Montreal		
	Cal.	N.S.	Ariz.-Cal.	N.J.-N.Y.	Que.
	ctn.2 doz. 43 lb.	ctn.2 doz. 43 lb.	ctn.2 doz. 43 lb.	ctn.2 doz. 43 lb.	ctn.1½ doz. 43 lb.
- cents per pound -					
Jan. 4	14.0		10.2		
11	14.0		10.5		
18	14.0		10.5		
25	13.4		9.3		
Feb. 1	12.6		9.6		
8	12.6		11.0		
15	13.0		17.7		
22	22.1		14.3		
Mar. 1	22.8		13.7		
8	17.4		14.5		
15	15.6		12.8		
22	15.1		13.1		
29	17.4		12.5		
Apr. 5	15.7		10.2		
12	13.6		11.9		
19	16.3		11.9		
26	15.9		12.5		
May 3	16.7		17.7		
10	18.6		19.5		
17	23.6		15.1		
24	16.3		18.3		
31	19.1 ^(a)		25.3		
June 7	25.6 ^(a)		20.3	20.7	
14	22.7 ^(a)		17.4	17.4	
21	19.8 ^(a)		16.6	14.8	10.2
28	19.8		16.9	15.7	7.3
July 5	24.4	20.3		16.3	9.9
12	22.7	20.3		17.2	10.5
19	21.9	19.8		14.8	8.1
26	16.3	16.9			6.1
Aug. 2	17.4	16.9			6.4
9	16.3	14.0			8.7
16	16.9	14.0	15.1	11.3	8.7
23	16.3	14.0	13.7	10.8	7.0
30	14.9	14.0		13.7	6.4
Sept. 6	14.9	14.0	16.6	14.3	8.1
13	18.1	14.0	15.7	13.1	7.6
20	16.3	14.0	13.1		6.4
27	16.3	14.0	13.1		6.4
Oct. 4	16.3	14.0	15.1	12.5	6.4
11	23.0		15.4	13.1 ^(b)	6.4
18	20.3		22.1	21.8 ^(b)	7.6
25	22.6		21.2	20.1 ^(b)	
Nov. 1	27.7		19.8	18.6 ^(b)	
8	24.2		18.0	18.6 ^(b)	
15	24.7		22.3	18.0	
22	25.6		19.2		
29	24.4		14.1		
Dec. 6	20.2		14.5		
13	18.6		14.0		
20	18.6		12.8		
27	17.4		12.5		

(a) Carton of 2½ dozen equivalent to 43 pounds.

(b) New Mexico quotations.

Source: Agriculture Canada.

Lettuce: Weekly Wholesale to Retail Prices at
Toronto, Winnipeg, and Vancouver, 1974

Week Ending	Toronto		Winnipeg		Vancouver	
	Ariz.-Cal.	Ont.	Cal.	B.C.	Cal.	B.C.
	ctn.2 doz. 43 lb.	ctn.1½ doz. 43 lb.	ctn.2 doz. 43 lb.	ctn.2 doz. 43 lb.	ctn.2 doz. 43 lb.	ctn.2 doz. 43 lb.
- cents per pound -						
Jan. 4	9.6		10.8		11.3	
11	11.0		9.9		12.3	
18	10.2		11.0		12.3	
25	10.2		10.1		11.1	
Feb. 1	9.9		9.8		10.9	
8	11.9		10.1		13.9	
15	16.3		13.4		16.0	
22	13.7		15.3		15.9	
Mar. 1	13.1		11.3		14.5	
8	13.4		13.7		15.2	
15	13.1		12.2		13.7	
22	13.4		13.8		13.4	
29	11.3		11.3		13.1	
Apr. 5	10.9		10.8		12.6	
12	13.7		11.0		13.2	
19	11.9		12.8		14.5	
26	15.4		11.5		12.5	
May 3	22.7		14.3		17.7	
10	18.0		16.7		18.9	
17	14.3		13.7		13.9	
24	25.6		14.1		17.2	
31	23.8		20.2		22.1	
June 7	17.7	9.0	20.9		18.3	
14	17.4	11.0	17.2		17.7	13.4
21		11.0	18.0		18.0	13.3
28		9.9	18.6	15.1	18.6	13.8
July 5	15.4	9.0	19.2	14.8	18.6	15.3
12	17.7	10.8	17.4	14.8		15.3
19		8.7	16.3			
26		7.0	15.1			
Aug. 2		6.1	15.5			
9		6.7	14.0	11.0		
16		6.7	13.8	11.0		
23		6.1	14.0	11.0		12.3
30		5.8	14.3			12.3
Sept. 6	14.3	7.9	17.4			12.3
13	13.7	8.4	16.2			12.4
20	12.8	7.0	14.3			11.3
27	13.4	6.4	13.8			10.8
Oct. 4	19.2	9.3	16.6			12.4
11	17.4		19.8			12.5
18	23.3		18.3		17.9	11.7
25	20.3		23.2		24.1	
Nov. 1	19.2		19.4		20.7	
8	20.3		20.1		20.1	
15	21.8		20.1		21.0	
22	16.9		19.4		20.1	
29	14.0		16.7		15.7	
Dec. 6	14.5		16.0		15.0	
13	14.3		15.0		15.7	
20	12.2		13.4		14.3	
27	13.1		13.4		14.3	

(a) Includes also Florida.

Source: Agriculture Canada.

Imported United States Lettuce: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs;
Cost of Duty; Toronto; Selected Data by Month, 1972-1974

Month of Shipment	1972					1973					1974				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
January	Calif.	6.8	3.3	-	10.1	Calif.	6.6	3.5	-	10.1	Calif.	4.7	3.6	-	8.3
	"	6.5	3.7	-	10.2	"	8.0	3.8	-	11.8	"	4.9	4.2	-	9.1
	"	5.7	3.5	-	9.2	"	6.8	3.8	-	10.6	-	-	-	-	-
	-	-	-	-	-	"	6.5	3.8	-	10.3	-	-	-	-	-
March	Calif.	3.9	3.5	-	7.4	Calif.	7.7	3.8	-	11.5	Calif.	6.0	3.9	-	9.9
	"	4.2	3.8	-	8.0	"	6.6	3.8	-	10.4	"	5.5	3.8	-	9.3
	"	4.2	3.7	-	7.9	"	6.0	3.7	-	9.7	"	6.3	4.1	-	10.4
	-	-	-	-	-	"	4.6	3.7	-	8.3	"	7.1	4.3	-	11.4
May	Calif.	3.8	4.0	-	7.8	Calif.	17.0	3.3	-	20.3	-	-	-	-	-
	"	3.6	3.7	-	7.3	"	11.6	3.9	-	15.5	-	-	-	-	-
	Ariz.	3.8	4.0	-	7.8	"	19.3	3.3	-	22.6	-	-	-	-	-
	"	3.3	4.0	-	7.3	Ariz.	15.0	3.9	-	18.9	-	-	-	-	-
June	Calif.	7.4	4.0	-	11.4	Calif.	17.0	3.6	-	20.6	Ariz.	12.0	4.0	1.0	17.0
	"	4.5	4.0	1.1	9.6	"	17.4	3.7	-	21.1	"	9.3	6.4	1.0	16.7
	"	3.7	3.9	1.0	8.6	"	19.7	3.8	-	23.5	Calif.	9.7	4.0	-	13.7
	"	5.1	4.0	1.1	10.2	"	17.0	4.1	0.9	22.0	"	9.3	4.0	0.9	14.2
	-	-	-	-	-	"	17.1	3.5	0.9	21.5	-	-	-	-	-
July	Calif.	5.1	4.0	1.1	10.2	-	-	-	-	-	Ariz.	10.9	4.2	0.9	16.0
	"	4.5	4.0	1.1	9.6	-	-	-	-	-	N.J.	11.6	1.6	1.1	14.3
	"	10.5	2.6	1.0	14.1	-	-	-	-	-	-	-	-	-	-

Imported United States Lettuce: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs;
Cost of Duty; Toronto; Selected Data by Month, 1972-1974

Month of Shipment	1972					1973					1974					
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	
								- cents per pound	-							
August	-	-	-	-	-	-	-	-	-	-	Ariz.	8.0	4.3	0.9	13.2	
	-	-	-	-	-	-	-	-	-	-	Calif.	7.4	4.3	0.9	12.6	
September	Calif.	7.7	5.1	0.9	13.7	Calif.	7.8	4.0	1.0	12.8	Calif.	5.8	4.5	0.9	11.2	
	"	7.1	3.5	0.9	11.5	"	5.7	4.0	1.0	10.7	"	7.0	4.5	1.0	12.5	
	"	9.0	5.0	1.2	15.2	"	6.6	4.0	1.0	11.6	"	6.8	4.3	0.9	12.0	
	Ariz.	8.0	3.9	1.1	13.0	Ariz.	7.8	5.3	0.9	14.0	Ariz.	6.4	4.7	1.4	12.5	
	"	7.1	4.0	-	11.1	"	8.1	4.0	1.0	13.1	"	5.8	4.3	0.9	11.0	
October	Calif.	4.2	3.8	-	8.0	Calif.	4.6	4.0	-	8.6	Calif.	10.5	4.7	-	15.2	
	"	3.8	3.9	-	7.7	"	5.2	4.1	-	9.3	"	12.5	5.2	-	17.7	
	"	8.1	4.1	-	12.2	"	7.2	5.6	-	12.9	"	11.7	4.7	-	16.4	
	"	5.4	4.1	-	9.5	"	6.6	3.4	-	10.0	Ariz.	15.3	4.2	-	19.5	
	"	10.1	3.9	-	14.0	Ariz.	5.8	4.0	-	9.8	"	14.0	5.2	-	19.2	
November	Calif.	11.2	3.9	-	15.1	Calif.	4.3	4.0	-	8.3	Calif.	14.3	4.3	-	18.6	
	"	12.4	3.4	-	15.8	"	5.3	4.0	-	9.3	"	12.8	4.1	-	16.9	
	Ariz.	13.5	3.8	-	17.3	Ariz.	5.8	4.0	-	9.8	"	15.2	5.7	-	20.9	
	-	-	-	-	-	"	4.6	3.9	-	8.5	-	-	-	-	-	
December	Calif.	6.5	3.5	-	10.0	Calif.	4.6	3.9	-	8.5	-	-	-	-	-	
	"	8.8	3.5	-	12.3	-	-	-	-	-	-	-	-	-	-	
	"	7.7	3.5	-	11.2	-	-	-	-	-	-	-	-	-	-	
	Ariz.	7.1	3.7	-	10.8	-	-	-	-	-	-	-	-	-	-	
	"	6.6	3.5	-	10.1	-	-	-	-	-	-	-	-	-	-	

Source: Tariff Board Survey.

Imported United States Lettuce: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Montreal, Winnipeg and Vancouver; Selected Data by Month, 1974

Month of Shipment	Montreal				Winnipeg				Vancouver						
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
July	N.Y.	10.5	1.1	0.9	12.5	Calif.	11.3	6.0	1.0	18.3	Calif.	9.5	3.1	1.0	13.6
	-	-	-	-	-	"	7.2	5.8	1.0	14.0	-	-	-	-	-
	-	-	-	-	-	"	6.6	5.4	1.0	13.0	-	-	-	-	-
	-	-	-	-	-	"	6.0	5.8	1.0	12.8	-	-	-	-	-
August	Calif. Texas "	6.9 5.2 5.7	6.3 5.4 5.4	1.0 0.9 1.0	14.2 11.5 12.1	Calif.	6.0	5.2	1.0	12.2	Calif.	6.0	5.6	1.0	12.6
						"	5.5	5.7	1.0	12.2	"	6.3	5.6	1.0	12.9
						"	4.9	5.3	1.0	11.2	"	5.7	3.3	1.0	10.0
						"	7.8	4.9	1.0	13.7	"	6.6	3.1	1.0	10.7
September	Calif. " - -	6.9 5.8 - -	4.9 4.8 - -	1.0 0.9 - -	12.8 11.5 - -	Calif.	5.5	5.2	1.0	11.7	Calif.	6.0	3.3	1.0	10.3
						"	5.5	5.6	1.0	12.1	"	5.5	3.2	1.0	9.7
						-	-	-	-	-	"	7.2	3.2	1.0	11.4
						-	-	-	-	-	"	12.4	3.3	1.0	16.7
October	Calif. " " "	6.4 8.1 10.5 13.1	5.3 5.7 4.9 5.2	0.9 0.9 - -	12.6 14.7 15.4 18.3	Calif.	9.2	5.1	1.0	15.3	Calif.	11.3	3.3	1.0	15.6
						"	9.2	4.7	1.0	14.9	"	7.8	3.3	1.0	12.1
						"	8.0	4.8	1.0	13.8	"	9.0	3.3	1.0	13.3
						"	11.5	4.2	-	15.7	"	13.0	2.7	-	15.7
November	Calif. Ariz. " -	10.5 11.3 11.6 -	4.9 5.0 5.8 -	- - - -	15.4 16.3 17.4 -	Calif.	12.4	3.7	-	16.8	Calif.	11.3	2.3	-	13.6
						"	11.5	5.3	-	16.8	"	13.0	3.1	-	16.1
						"	7.4	5.2	-	12.6	"	12.4	3.2	-	15.6
						Ariz.	8.0	4.7	-	12.7	"	7.9	3.0	-	10.9
December	Calif. " Ariz. "	8.1 5.2 5.7 4.9	4.7 5.0 5.1 5.2	- - - -	12.8 10.2 10.8 10.1	Calif.	8.0	5.2	-	13.2	Calif.	9.0	3.1	-	12.1
						Ariz.	4.5	5.3	-	9.8	"	7.8	3.1	-	10.9
						-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-

Source: Tariff Board Survey.

Appendix Table 11

Lettuce: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by States,
1966-1974

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1966-70</u>
- Acreage -						
Arizona		45,200	46,100	46,100	42,900	45,075
California		134,300	140,700	143,400	150,700	142,275
Florida		5,100	5,500	6,100	7,300	6,000
New Jersey		3,400	3,200	3,100	3,100	3,200
New Mexico		5,400	4,600	5,400	4,500	4,975
Texas		8,100	7,000	6,000	5,600	6,675
Other States		<u>15,050</u>	<u>12,580</u>	<u>14,750</u>	<u>13,920</u>	<u>14,075</u>
Total	224,450	216,550	219,680	224,850	228,020	222,275
- Production, '000 lb. -						
Arizona		883,400	827,600	839,700	849,300	850,000
California		3,230,000	3,486,700	3,531,000	3,644,300	3,473,000
Florida		60,900	62,800	106,000	120,000	87,425
New Jersey		50,400	48,000	52,900	54,300	51,400
New Mexico		111,200	90,500	119,700	95,800	104,300
Texas		108,900	124,800	106,600	103,700	111,000
Other States		<u>292,100</u>	<u>223,600</u>	<u>302,200</u>	<u>272,000</u>	<u>272,475</u>
Total	4,396,900	4,736,900	4,864,000	5,058,100	5,139,400	4,949,600
- Average Yield, lb. -						
Arizona		19,544	17,952	18,215	19,797	18,857
California		24,051	24,781	24,623	24,182	24,410
Florida		11,941	11,418	17,377	16,438	14,571
New Jersey		14,824	15,000	17,065	17,516	16,063
New Mexico		20,593	19,674	22,167	21,289	20,965
Texas		13,444	17,829	17,767	18,518	16,629
Other States		<u>19,409</u>	<u>17,774</u>	<u>20,488</u>	<u>19,540</u>	<u>19,359</u>
Total	19,590	21,874	22,141	22,495	22,539	22,268

Appendix Table 11 (concl.)

Lettuce: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by States,
1966-1974

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>
- Farm Value, \$'000 -						
Arizona		66,833	58,607	58,059	54,932	59,608
California		188,869	183,287	260,727	247,976	220,215
Florida		5,974	6,022	8,555	8,789	7,335
New Jersey		3,049	2,710	5,703	5,254	4,179
New Mexico		8,412	4,531	8,905	9,832	7,920
Texas		7,115	8,882	5,698	6,310	7,001
Other States		<u>18,514</u>	<u>14,697</u>	<u>27,276</u>	<u>22,443</u>	<u>20,733</u>
Total	220,146	298,766	278,736	374,923	355,536	326,990
- Farm Value, ¢ per lb. -						
Arizona		7.6	7.1	6.9	6.5	7.0
California		5.8	5.3	7.4	6.8	6.3
Florida		9.8	9.6	8.1	7.3	8.4
New Jersey		6.0	5.6	10.8	9.7	8.1
New Mexico		7.6	5.0	7.4	10.3	7.6
Texas		6.5	7.1	5.3	6.1	6.3
Other States		6.3	6.6	9.0	8.3	7.6
Total	5.0	6.3	5.7	7.4	6.9	6.6

Source: U.S. Department of Agriculture.

Lettuce: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year (a)	Maritime Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	July 6	Sept. 10	66	May 26	Oct. 28	155	May 18	Oct. 13	148
1967	July 7	Aug. 14	38	-	-	-	May 26	Oct. 23	150
1968	July 17	Aug. 13	27	May 29	Oct. 7	131	May 29	Oct. 21	145
1969	-	-	-	May 27	Oct. 17	143	May 21	Oct. 31	163
1970	June 26	Aug. 12	47	May 29	Oct. 6	130	May 29	Oct. 30	154
1971	June 18	Sept. 24	98	June 8	Oct. 1	115	June 4	Oct. 26	144
1972	June 20	Aug. 29	70	June 8	Sept. 29	113	June 13	Oct. 30	139
1973	-	-	-	June 15	Sept. 28	105	June 5	Oct. 17	134
1974	-	-	-	June 12	Oct. 4	114	June 11	Oct. 23	134
1975	-	-	-	June 10	Oct. 3	115	June 6	Oct. 21	137

(a) Government fiscal year commencing April 1st, ending March 31st following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: Department of National Revenue, Canada.

Lettuce: Dutiable Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Imports			Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	Dutiable '000 lb.			
1966	217,672	168,326	49,346	5.7	.85	14.9
1967	243,376	204,540	38,836	6.5	.85	13.1
1968	245,208	217,080	28,128	5.4	.85	15.7
1969	250,760	199,039	51,721	4.6	.85	18.5
1970	284,791	239,852	44,938	4.8	.85	17.7
Average 1966-70	248,361	205,768	42,594	5.3	.85	16.0
1971	265,220	231,567	33,653	6.4	.85	13.3
1972	298,129	251,454	46,675	5.0	.85	17.0
1973	313,653	277,344	36,309	7.7	.85	11.0
1974	343,862	293,683	50,179	7.6	.85	11.2
1975	376,271	310,908	65,362	7.1	.85	12.0
Average 1971-75	319,427	272,991	46,436	6.8	.85	12.5

Source: Statistics Canada.

MUSHROOMSTable of Contents

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MUSHROOMS

Mushrooms are neither a vegetable nor, in fact, a plant, as they are more technically classified as fungi. While wild mushrooms have been used as a food delicacy for centuries, commercial cultivation, originating earlier in France, began in North America only in the early 1900s. Per capita consumption, and cultivation, in Canada has grown steadily since the early 1950s, with main growing regions currently being centred around Montreal, Toronto, Winnipeg, and Vancouver. Mushroom cultivation is an important agricultural activity in Canada. The value of Canada's mushroom crop ranks only below that of potatoes and tomatoes.

Mushrooms consist of a cap, a stem, and an attached appendage termed a veil under which is the gill. Like all fungi, mushrooms cannot utilize carbon dioxide from the air; they thus do not manufacture their own carbohydrates but take them from decomposed organic material. Growth commences following the development of a root-like system termed mycelium. While many different species and varieties of mushrooms exist, one species, Agaricus bisporus, is generally cultivated in Canada and has been derived from the field or common mushroom. The colour of the cap, which may be white, cream, or brown, permits a distinction between the types of mushrooms which are grown commercially. The white-capped strain is most commonly cultivated in Canada and is generally the most desirable strain for the fresh market, and for canning as well. While both cream and white-capped strains may be canned, the brown type appears to be chiefly suitable for the fresh market.

MUSHROOM CULTIVATION

Mushrooms are cultivated in specially constructed houses which permit the control of temperature, humidity and ventilation. These growing facilities are normally darkened as the introduction of direct sunlight or strong light will often result in a discoloration of the caps which is not desirable from the point of view of consumer appeal.

Mushroom cultivation commences with the composting process, a procedure in which organic material is prepared into compost matter to provide high carbohydrate and nitrogen content. Horse manure and various synthetic composts may be used as organic material, with the former being obtained mainly from stockyards, racetracks and riding stables. Synthetic material employed in composting normally consists of commercially available nitrogen, phosphorus, and potash fertilizers added to a base of corn-cobs, hay, or straw. Compost of either type is usually prepared over a period of several days, in outside facilities, with watering and mixing to ensure a properly enriched and nutritional growing medium. Before seeding or spawning commences, compost is brought into the growing house where it is normally sterilized by raising compost temperatures from 57.2°C to 60.0°C for a number of hours. This is done to destroy insect pests, nematodes, and various other disease-producing organisms.

The seeding or propagating material employed is termed spawn and is grown by specialized producers in Canada who supply mushroom-growing operations. Spawn preparation entails a laboratory process in which selected or "pedigreed" spawn is grown. In this process selected mushrooms are cultivated and, in germination laboratories, spores are removed from the mature gill formation. After germination, the spores comprise a form of mould growth consisting of mycelium which is further cultured on special culture bases. This spawn material, purchased by mushroom growers from spawn producers, is introduced into the composted beds by broadcasting.

After the further growth of the mycelium throughout the prepared bed a "casing" procedure follows in which bed surfaces are normally covered with a 1- to 2-inch soil layer. Mature mushrooms appear in about three to four weeks after the casing stage and continue to grow at seven- to ten-day intervals (in outbreaks known as "flushes") over a two- to three-month period. As a result of growing conditions and the cultivation media used, diseases and pests may present severe problems.

When ready for harvesting, mushrooms are picked from beds, at which stage they are trimmed and graded. In the harvested state, they are highly perishable and easily damaged in handling; as a result of the drying and discoloration of the cap which may take place after harvesting, efficient handling and rapid transport to market, or to processing facilities, are important.

Two general systems of mushroom cultivation are employed in Canada, the more common bed system and the more recent tray system. While there are no significant cultivation differences, in the latter system mushrooms are grown in movable trays as against permanent wooden beds. The tray system is said to be advantageous in permitting improved disease control, increased mechanization, and fuller space utilization. The greater number of crops per year is also permitted by the tray system; however, there is a greater capital outlay entailed in constructing such facilities.

GROWING AREA, PRODUCTION AND FARM VALUE

There was a rapid growth in production from the 1964-65 average of 18.6 million pounds to the peak production of 40.2 million pounds in 1972. Since then there has been a slight decline to a 1974 production level of 38.5 million pounds. Quebec and Ontario together account for over three-quarters of mushroom production. Their share of production has, however, declined in recent years to 76 per cent of total production in 1974 as compared to 81 per cent in 1971; British Columbia's share of production shows a commensurate rise during this period. There was little or no mushroom production occurring in the Maritime region.⁽¹⁾

(1) Report of the Anti-dumping Tribunal Respecting the Effects of Preserved Mushroom Imports on Canadian Production of Like Goods, Anti-dumping Tribunal, November 27, 1973, Ottawa, Ontario.

The growing area for mushroom cultivation in Canada, measured in terms of square footage harvested, expanded from some 10 million square feet in 1964 to about 16 million square feet in 1972; a decline of 10 per cent in harvested area has taken place since 1972. The actual bed area provided by cultivation facilities is much less, 5 million square feet in 1974; the higher harvested area reported reflects several crops per year.

Average yields obtained in mushroom farming increased steadily from the 1964-65 average of 1.92 pounds per square foot of bed area harvested to a 1974 average of 2.67 pounds per square foot, a rise of 39 per cent. Commercial mushroom cultivation involves rather technical growing procedures; growers in Canada, however, are well organized and, under the auspices of the Canadian Mushroom Growers Association, meet regularly in order to keep informed about the most modern growing techniques. The steadily increasing yields may thus be ascribed to industry efforts to upgrade cultivation procedures.

According to a study done by the Anti-dumping Tribunal higher yields are usually obtained by larger growers. In 1972 the average yield for all growers was 2.50 pounds per square foot; larger growing operations (over 200,000 square feet of bed space) obtained a yield of 2.64 pounds as against 2.22 for small growing operations (less than 60,000 square feet of bed space). This 20 per cent difference in yield compares with an average 14 per cent difference over the 1965-1972 period. The disparities in yields obtained by region may be attributed to differing size of mushroom-growing operations. All of the larger growers are located in Ontario and Quebec, and this presumably explains the much higher yields reported in these provinces compared to yields in the Prairie region and in British Columbia. It should also be observed that the average yields obtained by Canadian mushroom growers have approximated those achieved in the United States (see Appendix Table 8). Domestic yields also compare favourably with those in other producing countries such as France and Holland. Mushroom cultivation in Canada thus appears to be as technically advanced and as modernized as mushroom growing in other countries.

The value of Canada's mushroom crop is substantial. Total crop value in 1974 was some \$22.1 million roughly tripling that of the 1964-65 period. Average value per pound in 1974 was 57.5 cents.

The value of mushroom production is given in terms of "crop value," as distinct from "farm value" as employed for other fruits and vegetables but can be considered equivalent. Crop value includes not only receipts by mushroom growers, who sell to the fresh market or to processors, but includes as well the value of mushrooms grown by processors themselves for their own canning requirements. The importance of Canada's mushroom crop is shown by the fact that in 1974 the crop value figure of \$22.1 million ranked next to that of potatoes (farm value of \$172.7 million) and tomatoes (farm value of \$32.5 million).

The annual average return per pound to the Canadian mushroom grower increased steadily from 41 cents in 1964-65 to 57.5 cents in 1974 as also shown in Table 1. The average return shown includes sales to the fresh market, sales to processors, as well as the per pound values of mushrooms grown by processors for their own requirements.

Table 1: Mushrooms: Growing Area, Production, Yield per Square Foot, Crop Value and Crop Value per Pound, by Region, 1964-1974

	Average 1964-65 ^(a)	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1964-65 to 1971-74
	- Growing Area, '000 sq. ft. ^(b) -							
Que. & Ont. ^(c)	6,839	7,474	10,123	12,458	11,618	10,432	11,158	+63.2
Prairies	629	655	1,015	1,230	1,329	1,411	1,246	+98.1
B.C.	2,235	1,939	2,012	2,412	2,870	2,577	2,468	+10.4
Canada	9,703	10,068	13,150	16,100	15,817	14,420	14,872	+53.3
	- Production, '000 lb. -							
Que. & Ont. ^(c)	14,859	18,282	26,162	33,311	31,674	29,241	30,097	+102.6
Prairies	902	1,284	1,895	1,973	2,492	2,618	2,245	+148.9
B.C.	2,833	2,968	4,179	4,915	5,912	6,622	5,407	+ 90.9
Canada	18,594	22,534	32,236	40,199	40,078	38,481	37,749	+103.0
	- Average Yield, lb. per harvested sq. ft. -							
Que. & Ont. ^(c)	2.17	2.45	2.58	2.67	2.73	2.80	2.70	+24.4
Prairies	1.43	1.96	1.87	1.60	1.88	1.86	1.80	+25.9
B.C.	1.27	1.53	2.08	2.04	2.06	2.57	2.19	+72.4
Canada	1.92	2.24	2.45	2.50	2.53	2.67	2.54	+32.3
	- Crop Value, \$'000 -							
Que. & Ont. ^(c)	6,022	..	..	..	..	..	..	..
Prairies	403	..	..	..	..	..	..	..
B.C.	1,208	..	..	..	..	..	..	..
Canada	7,633	10,369	16,917	20,311	21,272	22,143	20,161	+164.1
	- Crop Value, ¢ per lb. -							
Que. & Ont.	40.5	..	..	..	..	..	..	..
Prairies	44.7	..	..	..	..	..	..	..
B.C.	42.6	..	..	..	..	..	..	..
Canada	41.1	46.0	52.5	50.5	53.1	57.5	53.4	+29.9

(a) Statistics prior to 1964 are not recorded.

(b) Based on area harvested.

(c) These provinces are combined for reasons of confidentiality. Figures include minimal production in the Maritime Provinces.

Source: Statistics Canada.

The return on fresh mushrooms sold on the fresh market is substantially higher than for mushrooms sold, or grown, for processing. In 1974, for example, the fresh market return was some 21 cents per pound higher than the return realized in the processing market.

NUMBER OF GROWING ESTABLISHMENTS AND EMPLOYMENT

There are currently 128 mushroom-growing establishments in Canada. Canada's mushroom industry, while characterized by a large number of small-growing operations, is nonetheless concentrated in that only six growers account for nearly 60 per cent of annual production. Three domestic producers operating as both growers and processors account for slightly over 40 per cent of total annual Canadian production.

Table 2: Mushrooms: Number of Growing Establishments and Employment^(a) 1965-1974

Year	Quebec and Ontario ^(b)		Prairie Provinces		British Columbia		Canada	
	No. of Estab.	Employment	No. of Estab.	Employment	No. of Estab.	Employment	No. of Estab.	Employment
1965	33	849	4	54	53	122	90	1,025
1966	32	880	6	87	53	259	91	1,226
1967	40	973	3	71	61	231	104	1,275
1968	38	966	4	106	60	232	102	1,304
1969	51	996	7	105	49	233	107	1,334
1970	48	1,167	7	90	46	263	101	1,520
1971	46	1,306	8	129	54	302	108	1,737
1972	62	1,570	10	140	59	437	132	2,147
1973	57	1,555	7	151	65	338	129	2,044
1974	54	1,468	7	139	67	342	128	1,949

(a) Total number of employees during the peak period.

(b) Establishment data include only Quebec and Ontario except in 1974. Employment in the Maritime region may be taken as negligible.

Source: Statistics Canada and Anti-dumping Tribunal.

Although Quebec and Ontario account for less than one-half of the number of reported establishments, these provinces provide for three quarters of the national output. Average establishment size is much larger in Quebec and Ontario; production per establishment for these provinces in 1974 averaged 541,000 pounds, as against 374,000 pounds per establishment in the Prairie region and 98,800 pounds per establishment in British Columbia. Employment in the industry has doubled to 2,000 people in 10 years. Employment data, however, are presented on a peak period basis; August-September "slack period" employment totals were some 30 per cent below peak employment in 1973 and 1974. Permanent employment may thus be estimated as being about 1,400.

Table 3: Mushrooms: Supply and Disposition, Canada, 1964-1974

	Average 1964-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1964-65 to 1971-74
				- '000 lb. -				
<u>Total Production</u>	18,594	22,534	32,236	40,199	40,078	38,481	37,749	+ 103.0
<u>Total Imports</u>	2,229	6,607	14,213	22,844	19,634	34,324	22,754	+ 920.8
Fresh	1,084	2,184	916	668	2,913	6,067	2,641	+ 143.6
Processed (a)	1,145	4,423	13,297	22,176	16,721	28,257	20,113	+1656.6
<u>Total Supply Available</u>	20,823	29,141	46,449	63,043	59,712	72,805	60,502	+ 190.6
Available for processing or imported processed	12,336	18,416	32,005	44,977	38,195	48,629	40,952	+ 232.0
From domestic production	10,649	12,901	18,250	22,467	20,254	18,604	19,894	+ 86.8
Imported fresh(b)	542	1,092	458	334	1,220	1,768	945	+ 74.4
Imported processed (a)	1,145	4,423	13,297	22,176	16,721	28,257	20,113	+1656.6
Available for fresh market	8,487	10,725	14,444	18,066	21,517	24,176	19,551	+ 130.4
From domestic production	7,945	9,633	13,986	17,732	19,824	19,877	17,855	+ 124.7
Imported(b)	542	1,092	458	334	1,693	4,299	1,696	+ 212.9
<u>Total Exports(c)</u>	92	45	114	136	193	275	180	+ 95.7
<u>Total Domestic Disappearance</u>	20,731	29,096	46,335	62,907	59,519	72,530	60,323	+ 191.0
Consumed in processed form	12,244	18,371	31,891	44,841	38,002	48,354	40,772	+ 233.0
From domestic production	10,557	12,856	18,136	22,331	20,061	18,329	19,714	+ 86.7
Imported	1,687	5,515	13,755	22,510	17,941	30,025	21,058	+1148.3
Fresh market consumption	8,487	10,725	14,444	18,066	21,517	24,176	19,551	+ 130.4
From domestic production	7,945	9,633	13,986	17,732	19,824	19,877	17,855	+ 124.7
Imported(b)	542	1,092	458	334	1,693	4,299	1,696	+ 212.9

(a) Canned imports only; converted to fresh equivalents on the basis of 13 lb. per case of 24-/10-oz. cans; excludes small import volumes of frozen or dried mushrooms.

(b) For the 1964-1972 period it is estimated that approximately 50 per cent of fresh imports were entered for the fresh market.

(c) Principally exports of canned mushrooms, includes small export volumes of dried mushrooms.

Source: Based on Statistics Canada data.

SUPPLY AND DISPOSITION

With production for both the domestic fresh market and for processing growing rapidly from 1964 to 1972, processing needs accounted for 57 per cent of production over this period. While production for fresh market consumption has continued to rise, the volume used by processors has faltered since the peak reached in 1972 - the result of increasingly severe import competition from processed mushrooms. The proportion of domestic production taken by processors thus declined to 52 per cent in the 1972-74 period, with the fresh market in 1974 being more important to growers than the processing market.

Imports of fresh mushrooms have, until recently, not been a significant factor in the domestic fresh market. For the 1971-74 period imports for the fresh market accounted for only some 9 per cent of Canadian fresh market consumption. However, the volume of mushrooms entered for the domestic fresh market increased significantly in 1973 and particularly in 1974. In 1973 and 1974, imports accounted for 8 per cent and 18 per cent, respectively, of domestic fresh market demand.

Canadian consumption, or total domestic disappearance of mushrooms in both the fresh and processed form is estimated at 60.3 million pounds as based on the 1971-74 average. Consumption has grown rapidly with domestic disappearance during that period at about three times the level existing in 1964-65. Per capita consumption, at 2.75 pounds per person in 1971-74, has increased nearly threefold. The rapid rise in per capita consumption reflects an increased consumer use of mushrooms in casserole dishes and sauces, or as a garnish; the increased popularity of mushroom soups and pizza pies is also an important factor. Rising consumer affluence during the 1960s has contributed to the increase in per capita consumption.

Import penetration levels, and the degree to which Canadian mushroom growers have met total Canadian requirements for both fresh and processed mushrooms, have changed substantially since the mid-1960s largely as a result of greatly increased processed imports from South Korea and Taiwan. These changes are illustrated in Table 4 below.

Table 4: Mushrooms: Supply and Disposition Ratios, Canada, 1964-1974

	Canned Imports as % of Processed Consumption ^(a)	Total Imports as % of Domestic Disappearance	Domestic Fresh Sales as % of Domestic Production	Fresh Imports as % of Fresh Market Consumption
	%	%	%	%
Average				
1964-65	9.4	10.8	42.7	6.4
Average				
1966-70	24.1	22.7	42.8	10.2
1971	41.7	30.7	43.4	3.2
1972	49.5	36.3	44.1	1.8
1973	44.0	33.0	49.5	7.9
1974	58.4	47.3	51.7	17.8
1971-74	49.3	37.7	47.3	8.7

(a) Based on fresh equivalent weight.

Source: Table 3.

Total imports in 1974 accounted for 47 per cent of Canadian consumption compared to only 11 per cent in 1964-65. In 1964-65 imports of the canned product, in terms of fresh equivalents, accounted for only a minor share, some 9 per cent, of Canadian processed mushroom consumption. However, during the latter part of the 1960s canned imports rose steadily and a pronounced increase took place from 1971 to 1974, with canned imports rising to 28.3 million pounds in 1974 from 13.3 million pounds in 1971. Canned mushroom imports in 1974 captured 58 per cent of all mushrooms consumed in Canada in the processed form. Fresh mushrooms are not imported in any significant volume for processing purposes; for the 1971-74 period such imports constituted only 5 per cent of total acquisitions by processors.

Despite rapidly rising imports of processed mushrooms the domestic output of mushrooms for processing continued to rise up to 1972, to 22.5 million pounds from 10.6 million pounds in 1964-65. The increasing import penetration adversely affected the growth in domestic output to the point where that output dropped after 1972, to 18.6 million pounds in 1974. As a result, Canadian growers have become increasingly dependent on the fresh market. For the period 1964-70, fresh market sales took about 43 per cent of total mushroom production; this ratio has increased to 52 per cent in 1974.

At the same time there have been rising imports of fresh mushrooms entered from the United States. Fresh mushroom imports for the fresh market rose in 1973 and increased greatly in 1974, to some 4.3 million pounds. Imports in 1974 constituted 18 per cent of domestic fresh market sales as against only 2 to 3 per cent in 1971 and 1972. This, however, may reflect unusual market conditions since partial import data for 1975 indicate a subsequent decline in imports to the domestic fresh market.

Only a small share of domestic production is involved in interprovincial trade. While Quebec markets about 20 per cent of its fresh market production in other provinces, Ontario sells only some 6 per cent. British Columbia growers ship only 10 per cent of their fresh market production outside the province.

IMPORTS

Seasonality is, evidently, not a factor in the cultivation, marketing or importation of mushrooms. Mushroom production essentially takes place on a year-round basis although output, both in Canada and the United States, declines somewhat in the months of July and August because of adverse high summer temperatures. Imports of fresh mushrooms similarly display no important seasonal pattern (see Appendix Table 5), although imports also tend to decline during the summer months. Fresh mushrooms are imported almost exclusively from mushroom-growing centres in the north-eastern United States (see Appendix Table 3).

Because of the extreme perishability of fresh mushrooms, rapid transport (normally by refrigerated truck) is essential in marketing. At the public sittings it was stated that the Canadian market is not really accessible to California growers unless air transport is used

because trucking takes too long; however, the cost of air shipment was said to be prohibitive. While mushrooms are grown in California, in Asian countries (e.g., Taiwan, South Korea, Japan), and in Europe (e.g., United Kingdom, Holland, and France), mushroom producers in these areas, by reason of transport costs, are very unlikely to constitute any significant competition to fresh market growers in Canada.

The bulk of mushroom imports enter Quebec and Ontario, as might be anticipated considering the location of main consumer markets in these provinces (see Appendix Table 4). Only small volumes of the fresh product enter the Maritime or the Prairie Provinces.

It is estimated that up to 1972 at least one-half of fresh mushroom imports were for processing purposes, mostly into Quebec and Ontario, where the bulk of processing activity takes place. The significant rise in fresh imports recorded for 1973 and 1974 reflects United States imports sold on the domestic fresh market. According to information received, acquisitions by processors comprised only a minor portion (less than 15 per cent) of total fresh imports in these two years.

Domestic mushroom growers expressed concern over the possibility of rising import penetration by United States growers into the Canadian fresh mushroom market. However, the latest import figures suggest that such a concern may be misplaced. Total mushroom imports declined to about 3 million pounds⁽¹⁾ in 1975 versus 6.1 million pounds in 1974. While Canadian growers felt there were attractive export markets in cities in the northern United States, the United States tariff on fresh mushroom imports appears to be at a level which would prohibit imports from Canada.⁽²⁾

PRICES

The annual average return per pound to the Canadian mushroom grower, for mushrooms sold on the fresh market, has increased from an average of 46.2 cents per pound in 1964-65 to 67.1 cents in 1974, or 45 per cent. As compared to mushrooms sold on the fresh market, the return to the grower on sales to processors has been significantly less and the gap has been widening in recent years.

(1) Mushroom imports were 2.8 million pounds in 1975. This figure would principally consist of imports for the fresh market.

(2) The United States tariff on mushrooms (item 144.10) imported from Canada is 5 cents per pound plus 25%.

Table 5: Mushrooms: Crop Value per Pound, 1964-1974

	Average <u>1964-65</u>	Average <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
	- ¢ per lb. -					
<u>Fresh Market Sales:</u>						
Quebec & Ontario ^(a)	44.9	52.3	59.4	57.9	60.7	65.2
Prairies	51.7	60.9	64.6	67.8	69.2	74.2
B.C.	50.8	59.4	63.7	65.5	66.0	70.2
Canada	46.2	53.6	60.4	59.7	62.4	67.1
<u>Processing Market Sales:</u>						
Canada	36.5	40.0	43.0	43.1	44.5	46.0

(a) Includes minimal production in the Maritime region.

Source: Statistics Canada.

Fresh market grower prices have been consistently highest in the Prairie region; the main mushroom-growing centre in this region is in the vicinity of Winnipeg. Returns to British Columbia growers have averaged somewhat below those received by growers in the Prairies, while the lowest average returns were realized by producers in Quebec and Ontario. Prices for mushrooms at the grower level do not, in contrast to agricultural commodities, show any pronounced annual or seasonal fluctuations. This relative price stability derives largely from a demand which has grown steadily without seasonal changes, and from a factory style of production not affected, like other agricultural commodities, by weather conditions. The access to the processing market can, in the short run, provide a further stabilizing factor except when excess supplies of processed mushrooms depress that sector of the market.

Data respecting the return per pound for processing market sales are not available according to region. A comparison of the Canadian average price for processing mushrooms for all Canada sales to that for fresh market sales indicates a growing price differential between the two markets. This price differential was 10 cents per pound in 1964-65 as against 21 cents in 1974; whereas fresh market prices have risen by some 48 per cent since 1964 the price received on sales to processors has risen by only 28 per cent. The lower return realized by the growers on such processing sales does not appear to be the result of a premium product being reserved for the fresh market as the processing market demands similar quality, except for "pieces and stems" and canned, sliced mushrooms. Moreover, there appears to be only minor cost savings in packaging as between selling to the processing market versus the fresh market. However, independent mushroom growers are evidently willing to accept significantly lower returns when selling to processors, while the grower-processor has the advantage of being able to serve both the fresh and processing market.

import pressure in the market for the processed product also limits the price which domestic processors are prepared to pay for mushrooms for processing.

A high proportion of mushroom production in Canada is accounted for by a relatively few large grower-processors who grow this product for their own canning requirements.⁽¹⁾ Such grower-processors have been subject to strong import competition in the canned product and accordingly have tended to dispose of larger production volumes onto the fresh market. This has not resulted in periods of distress selling prices or in depressed prices in the fresh market because of the steadily increasing demand. Fresh market returns have, in fact, increased somewhat; and price information obtained by the Board for the first nine months of the 1975 year indicates continued price stability. Some industry members contended, however, that fresh market prices in 1975 have not kept pace with cost increases.

Wholesale prices to retailers for domestically produced mushrooms showed considerable price stability during 1974. Wholesale to retail prices are not available for imported mushrooms.

Table 6: Wholesale to Retail Selling Prices for Domestic Mushrooms in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974(a)

<u>Halifax</u>	<u>Montreal</u>	<u>Toronto</u>	<u>Winnipeg</u>	<u>Vancouver</u>
- range in ¢ per lb. -				
106-120	78-88	69-83	78-90	79-82

(a) Based on 5-pound cartons, excepting Vancouver quotations based on 10-pound cartons.

Source: Appendix Table 7.

While stability exists within regional markets, there is a notable price variance between the major markets across Canada. Wholesale prices on the Halifax market are much higher than those in other areas; Toronto wholesale prices tend to exhibit the lowest levels. No major price differences exist between Montreal, Winnipeg, and Vancouver.

The substantially higher wholesale price levels indicated for Halifax reflect the fact that there is little or no local mushroom production in the Maritime region. This market is in large part served by Quebec and Ontario growers with significant transportation costs. Quebec and Ontario growers also sell their fresh product on the Winnipeg market; however, the price obtained by the Quebec or Ontario grower on this market is limited by local competition.

(1) The prices reported for such processor grown mushrooms does not differ from recorded prices respecting mushrooms sold to processors (see Appendix Table 1).

While published wholesale to retail price quotations are not maintained in the case of imported fresh mushrooms, the average wholesale price is estimated at 55 cents per pound in 1974. As based on unit value data for imports, average f.o.b. selling price in 1974 was about 38 cents per pound; to this f.o.b. price must be added import duty ($4\frac{1}{2}$ cents per pound), freight cost and brokerage (5 - 7 cents per pound on shipments from Pennsylvania or New York to Toronto or Montreal), and a wholesale mark-up said to range between 10-15 per cent. Freight and brokerage costs obviously offers more protection to domestic mushroom growers than the duty itself.

Imported mushrooms compete in the Canadian fresh market on the basis of a lower base price. The f.o.b. price for the imported fresh product averaged 40 cents per pound in 1973 and about 38 cents in 1974; this may be assumed to be the approximate per pound return to the United States grower on his export sales to the Canadian market; only when the domestic price is firm and excess supply exists among producers in the north-eastern United States, will the Ontario and Quebec fresh markets from time to time attract import competition.

COSTS OF PRODUCTION

The Federal Department of Industry, Trade, and Commerce conducted in 1975 a cost survey of a number of domestic mushroom growing operations; following authorizations received from growers participating in this cost survey, the Board was able to derive average, or composite, costs respecting mushroom cultivation based on the 1974 year. Although the number of growers included in the cost sample was relatively small, all of the major domestic producers of this product were included; the average costs presented and discussed below, while based only on the returns of eight growers, include producers accounting for over 50 per cent of production in 1974. As the survey returns available to the Board did not include producers in the Prairie region or in British Columbia, the average cost experience presented is representative of production costs in Ontario and Quebec. On the other hand, in mushroom cultivation there are, of course, no climatic or regional differences in growing conditions, and the average costs, and principal cost breakdowns compiled probably reflect, approximately, those also prevailing for producers of similar size in the Vancouver and Winnipeg growing centres. In the case of British Columbia production some cost differences would exist, however, as a result of the higher wage rates in that province and small scale and lower yields.

Total production cost for mushrooms average some 49 cents per pound based on 1974 costs. Selling and administration costs are excluded as much as possible from production costs.

Table 7: Mushrooms: Per Pound Production Costs, 1974

	<u>¢ per lb.</u>	<u>as % of Total</u>	<u>Range in ¢ per lb.</u>
Materials	11.4	22.8	5.7-25.8
Packaging	2.0	4.0	- - 5.2
Direct labour	21.2	42.4	9.2-34.2
Factory overhead and other costs (a)	15.4	30.8	9.8-22.6
Total Production Cost	48.7	100.0	30.6-70.9

(a) Includes expenses reported as other production costs.

Source: Tariff Board and Industry, Trade and Commerce.

The cost returns submitted evidenced a considerable variance, as shown by the range figures given above. Total production cost varied from about 31 to 71 cents. Variation in yield per square foot is thought to explain these cost differences; however, the unusually low cost (30.6 cents per pound) reported by one grower in the sample reflects a family-growing operation in which labour charges were not fully costed. The variance noted in the four cost breakdowns given appear to largely reflect different accounting practices in allocating cost components. While the producers surveyed showed a 31-71 cents variance in total production cost per pound, this rather wide difference results from the inclusion, in the averages, of two quite small operations. If these two growers are excluded the production cost range is much more uniform, varying between 37-58 cents per pound; it may thus be concluded that major mushroom growers experience production costs of 40-60 cents per pound.

Mushroom cultivation is a relatively labour intensive activity; direct labour comprises the most important single cost component at about 42 per cent of total production cost. Most of this labour cost is incurred during the picking process which accounts for an estimated 50-65 per cent of all labour charges. On the other hand, packaging costs (covering master cartons and small plastic trays for retail sales) constitute less than 5 per cent of production costs on average. Packaging costs tend to be slightly higher for the grower selling to the fresh market, as opposed to the processing market; there may also be slightly higher labour costs associated with sorting into small retail trays when the grower sells to the fresh market. The above production cost data include mushrooms grown by processors for their own needs, mushrooms grown by others for the processing market, and mushrooms grown for the fresh market; although the fresh market grower may experience slightly greater production costs, from additional packaging and labour, such cost differences may be taken to be inconsequential.

Factory overhead (mainly building depreciation, machinery and vehicle depreciation, repair and maintenance) comprises the second principal cost component, averaging some 31 per cent of production cost. This percentage is somewhat overstated due to the inclusion, in some returns, of non-specified "other" production costs; if appropriate

adjustments are made to exclude such other costs, factory overhead may more validly be taken as averaging 13.2 cents per pound, or 27 per cent of production cost. Factory overhead cost is, thus, considerably less than direct labour cost per pound, at 21.2 cents or some 42 per cent of production cost.

Materials' costs averaged some 11.4 cents per pound or 23 per cent of production cost. This breakdown includes the cost of composting materials, fertilizers, spawn, casing soil and pesticides-insecticides.

The survey returns available to the Board also permitted a comparison of production costs for 1973 and 1974. On average, production cost per pound had increased by an estimated 7 cents per pound or about 15 per cent, over this 12-month period. While some growers stated that increasing labour costs were the principal factor in recent cost increases, this was not supported by the comparison undertaken; to the contrary, materials' costs and factory overhead costs accounted for about three-quarters of the cost increase evident between 1973 and 1974.

If the average 1974 production cost estimate derived by the Board (48.7 cents per pound) is compared to the average fresh market selling price in 1974 (67.1 cents per pound as given in Table 6), there is an indication of substantial profit margins realized by "average" growers. However, while growers may obtain a substantial profit margin on that portion of production sold to the fresh market, marginal losses may be incurred from time to time on mushrooms sold for processing.

TARIFF CONSIDERATIONS

Fresh mushrooms are at present classified under tariff item 8500-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Mushrooms, fresh, the weight of the packages to be included in the weight for duty .....per pound	1 ct.	4½ cts.	5 cts.

The present tariff on mushrooms has been in effect since 1959 at which time the M.F.N. rate was increased from 3½ cents per pound to the existing rate of 4½ cents per pound. Whereas imports from British Preferential Countries were accorded duty-free entry from 1935 to 1958, a duty of 1 cent per pound was introduced in 1959. The 5 cents per pound duty presently imposed under the General Tariff is somewhat higher than that applicable from 1948 to 1958 but substantially less than the General Tariff applicable from 1935 to 1947. The following table permits a comparison of rates applicable to fresh mushrooms from 1935:

Table 8: Mushrooms: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. (a)
1936-1938	Free	15 p.c.	30 p.c.
1939-1947	Free	10 p.c.	30 p.c.
1948-1959 (Apr. 9)	Free	3½ cts. (52 weeks) or 10 p.c.	3½ cts. (52 weeks) or 10 p.c. (b)
1959 (Apr. 10)	1 ct.	4½ cts.	5 cts.

(a) Not less than 10 cents per pound.

(b) Changed from 30 p.c., June 1, 1950.

Source: Canadian Customs Tariff.

The M.F.N. rate applying since 1959 at 4½ cents, currently equivalent to 11.4 per cent on an ad valorem basis, is somewhat higher than compared to M.F.N. rates prevailing over the period 1939-58. However, current M.F.N. rates of duty are less than those prevailing during 1936 to 1938.

The duties provided apply throughout the year, as this product is grown continuously with no particular production season; this is in contrast to most fruit and vegetable commodities on which tariffs are applied on a seasonal basis. Mushrooms are not, as in the case of some fruits and vegetables, subject to any additional duties if entered in small-sized packages. There are no preferential rates applicable to fresh mushrooms under the General Preferential Tariff. Virtually all fresh imports of this product originate from the United States and thus the 4½-cent M.F.N. specific duty is the only rate of any importance. Item 8500-1 is bound under GATT.

As shown in Appendix Table 9, the ad valorem equivalent of the specific duty of 4½ cents per pound has declined from 15.3 p.c. in 1966 to 11.8 p.c. in 1974. For the 1966-70 period the ad valorem equivalent averaged 13.3 p.c. as against 11.4 p.c. for the 1971-74 average. According to a previous study by the Tariff Board⁽¹⁾ in 1956 the then prevailing M.F.N. duty of 3½ cents per pound was equal to 11.8 p.c.; this specific duty was shortly thereafter raised to 4½ cents with the average M.F.N. equivalent being 15.3 p.c. for the 1961-64 period.

Two other tariff classifications apply to mushrooms if other than in the fresh state, tariff item 8505-1 (mushrooms, preserved, n.o.p.) and item 8507-1 (mushrooms, dried). These items, applying to mushrooms in processed form are discussed in sections of this Reference concerning processed vegetables. At present imports of frozen mushrooms are classified under item 8500-1 pertaining to fresh mushrooms. The Canadian Customs Tariff excludes truffles from any of the tariff items respecting mushrooms. While truffles are edible fungi similar to mushrooms, they are classified separately in the Canadian Tariff under item 8510-1 (truffles, fresh, dried or otherwise preserved); this item was not included in the Board's letter of reference nor does the Board feel any change is necessary respecting this separate classification. In contrast to mushrooms, truffles are not grown in Canada; imports are very minor in value, averaging less than \$50,000 in the years 1970 to 1974.

(1) Tariff Board Report Relative to Fruits and Vegetables, Reference No. 124, Ottawa, 1957, p. 85.

The Canadian Mushroom Growers Association proposed a compound M.F.N. Tariff on fresh mushrooms of 5 cents per pound plus 25 per cent ad valorem, together with a British preferential rate of 1 cent per pound and a General Tariff of 10 cents per pound plus 25 p.c. This proposal was supported by the Horticultural Council. While the brief of the Canadian Mushroom Growers Association states that fresh mushroom imports "have not been an important factor in the Canadian market," substantial tariff increases were nonetheless proposed in order that the Canadian duty on fresh imports be equal to duties imposed under the United States tariff. The M.F.N. rate structure advocated by this Association, as based on the 1974 average f.o.b. price of 38.1 cents per pound, would be equivalent to 14.53 cents per pound in terms of a specific duty, as against the much lower present duty of $4\frac{1}{2}$ cents per pound; if the combined 5 cents per pound plus 25 p.c. duty advocated by this Association is converted to an ad valorem equivalent, the proposed rate equals 38 per cent. At the public sittings it was indicated, however, that domestic growers would accept to a lower duty than that proposed should the United States duty on fresh mushrooms be lowered.

Fresh mushrooms are imported into the United States under tariff item 144.10 as follows:

	Rates of Duty	
	1	2
Mushrooms, fresh, or dried, or otherwise prepared or preserved:		
144.10 fresh	5¢ per lb. + 25% ad val.	10¢ per lb. + 45% ad val.

The 1974 ad valorem equivalent of the United States tariff on fresh mushrooms (Column 1 rate), assuming an export price of 67 cents per pound (the average farm value on fresh market sales in 1974), is equal to 32.5 per cent. Assuming an export price of 46 cents per pound (the average farm value on sales for processing in 1974) the United States duty works out to 35.9 per cent on an ad valorem basis.

The Canadian Mushroom Growers Association, and The Canadian Horticultural Council, also recommended a nomenclature revision to existing item 8500-1, requesting the inclusion of the term "in their natural state" to further define "mushrooms, fresh." It was pointed out that this inclusion would make the tariff item respecting mushrooms more consistent with other items concerning vegetables.⁽¹⁾ The Canadian Horticultural Council also recommended a separate classification for frozen mushrooms.

On a number of agricultural products the Canadian Food Processors Association recommended the elimination or reduction of tariffs where such products were imported for reprocessing. This Association accordingly recommended a separate tariff item respecting fresh mushrooms entered for processing ("Mushrooms for Manufacture"). Proposed for this item was a Free off-season rate and a 10 p.c. seasonal duty. As there is, in mushroom production, no defined "off-season" as such, this recommendation would establish a 10 p.c. duty throughout the year for fresh mushrooms entered for processing.

(1) The headnote to tariff items 3701-1 to 8731-1, covering fresh vegetables, includes the term "in their natural state."

Mushrooms are sold to processors at prices considerably less than those realized in the fresh market. The specific duty imposed, at $4\frac{1}{2}$ cents per pound, consequently constitutes a much higher tariff on this product when entered for processing purposes. Given a price range of 30-50 cents per pound as based on 1974 import data, on an ad valorem basis the current specific duty on mushrooms would comprise a 15 p.c. tariff rate on processing imports versus the much lower rate of 9 p.c. on imports for fresh market sale. The level of protection for one market might well be inappropriate for the other market. A separate tariff classification, applicable to mushrooms entered for processing as against mushrooms for fresh market sale, would allow a differentiation in the effect of any tariff rate revisions proposed.

CONCLUSIONS

Domestic mushroom production, 38.5 million pounds in 1974, has risen notably since the 1960s. Production levels have declined slightly since 1972 largely as a consequence of rapidly increasing imports of canned mushrooms. This import competition has induced some of the larger processor-growers in the industry to curtail growing activity; import competition has also led to a decline in sales to the processing market and to an increase in the proportion of domestic production sold on the fresh market. In 1974, fresh market sales took about 52 per cent of total mushroom production as against a 1966-70 average of 43 per cent.

Growers realize substantially higher returns per pound on fresh market sales as compared to sales for processing. While mushrooms sold for processing purposes may sometimes be of a lesser quality than those sold on fresh markets, this price differential evidently reflects a willingness on the part of independent growers to accept lesser returns on the processing market in place of distress selling prices in the fresh market. Despite a tendency for grower-processors to dispose of an increasing portion of their production onto to the fresh market, fresh market prices have remained stable.

Fresh mushrooms are entered almost exclusively from the north-eastern United States. Given the extreme perishability of fresh mushrooms and the prohibitive cost of air cargo shipments, it is very unlikely that growers in California or in other countries could compete with domestic growers. Canada does not export fresh mushrooms; the United States tariff on mushrooms is at a level believed to be prohibitive to imports from Canada.

With reference to the recommendations of the Canadian Mushroom Growers Association and The Canadian Horticultural Council that the existing tariff be increased in order to equate the Canadian tariff with that in the United States (5 cents per pound plus 25 p.c. ad valorem), the Board does not consider that the existing United States duty constitutes a valid basis for determining Canadian tariffs.

Analysis of the available data, including preliminary figures for 1975, does not lead to the conclusion that import penetration of fresh mushrooms for the fresh or processing market is likely to increase to disruptive levels. The Board noted that the exceptionally high 1974

import figures appear to have been an aberration from the norm and in any event did not have a depressing effect on the fresh mushroom market.

The Board examined the extent and effect of the erosion of the level of tariff protection which had taken place in recent years in the light of current additional protection afforded the domestic grower by transportation costs and perishability factors. The Board concluded that the current specific duty of $4\frac{1}{2}$ cents per pound was adequate in the context of the stable price conditions and growing demand which continue to characterize the domestic fresh mushroom market. It would be appropriate, however, to stabilize the effect of the existing specific duty by introducing a 10 per cent minimum ad valorem duty.

The Board considered the proposal of the Canadian Food Processors Association for a separate tariff item respecting fresh mushrooms entered for processing purposes and concluded that the maintenance of the present level of specific duty and the introduction of a 10 per cent minimum ad valorem duty would largely meet the Association's request while at the same time affording the Canadian supplier of fresh mushrooms for processing a reasonable level of protection against erratic import competition. However, as circumstances might alter with respect to either market, the Board recommends the introduction of two separate tariff items so that rates could, at some future date, be adjusted on mushrooms for one market without affecting the other. Further, this division will facilitate the gathering of separate statistics for each market.

To provide for consistency in classification and nomenclature, the Board recommends that the tariff provisions for mushrooms be brought under the general heading for "Vegetables, fresh, in their natural state." This will have the effect of excluding frozen mushrooms from these items.

RECOMMENDATIONS

The Board recommends that tariff item 8500-1 be deleted and that the following item be inserted under the general heading "Vegetables, fresh, in their natural state, the weight of the package to be included in the weight for duty."

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Mushrooms, n.o.p.			
..... per pound	1 ct.	4½ cts. but not less than 10 p.c.	5 cts. but not less than 12½ p.c.
Mushrooms for processing			
..... per pound	1 ct.	4½ cts. but not less than 10 p.c.	5 cts. but not less than 12½ p.c.

**Mushrooms: Disposition of Domestic Production and
Unit Values, 1964-1974**

<u>Year</u>	<u>Total Production</u>	<u>Sold Fresh</u>	<u>Sold to Processors</u>	<u>Processed by Growers</u>
- Production, '000 lb. -				
1964	18,312	7,846	6,809	3,657
1965	18,876	8,043	6,347	4,486
1966	19,059	7,300	7,087	4,672
1967	21,580	8,638	7,955	4,987
1968	23,096	9,816	7,816	5,464
1969	23,007	10,231	5,564	7,212
1970	25,929	12,181	6,468	7,280
1971	32,236	13,986	9,143	9,107
1972	40,199	17,732	7,979	14,488
1973	40,078	19,824	7,940	12,314
1974	38,481	19,877	7,070	11,534
- Value, \$'000 -				
1964	7,389	3,546	2,450	1,393
1965	7,877	3,794	2,345	1,738
1966	7,945	3,491	2,699	1,755
1967	9,652	4,598	3,160	1,894
1968	10,402	5,243	3,084	2,075
1969	10,667	5,650	2,266	2,751
1970	13,177	6,850	2,746	3,581
1971	16,917	8,452	3,935	4,530
1972	20,311	10,586	3,437	6,288
1973	21,272	12,360	3,533	5,379
1974	22,143	13,332	3,253	5,558
- Unit Value, ¢ per lb. -				
1964	40.4	45.2	36.0	38.1
1965	41.7	47.2	37.0	38.7
1966	41.7	47.8	38.1	37.6
1967	44.7	53.2	39.7	38.0
1968	45.0	53.4	39.5	38.0
1969	46.4	55.2	40.7	38.1
1970	50.8	56.2	42.5	49.2
1971	52.5	60.4	43.0	49.7
1972	50.5	59.7	43.1	43.4
1973	53.1	62.4	44.5	43.7
1974	57.5	67.1	46.0	48.2

Source: Statistics Canada.

Appendix Table 2

Mushrooms: Estimated Monthly Distribution of Domestic
Production^(a), 1966-1974

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
- thousand pounds -						
Jan.	820	1,518	1,035	1,383	1,883	1,769
Feb.	796	1,419	1,147	1,294	1,784	1,451
Mar.	810	1,636	1,454	1,596	1,923	1,570
Apr.	813	1,514	1,287	1,436	1,844	1,491
May	898	1,749	1,063	1,844	2,002	2,087
June	718	1,568	1,399	1,596	1,566	1,710
July	763	1,337	881	1,490	1,289	1,690
Aug.	675	1,430	853	1,631	1,685	1,550
Sept.	651	1,274	1,189	1,206	1,150	1,550
Oct.	891	1,398	1,091	1,188	1,566	1,749
Nov.	893	1,533	1,063	1,614	1,744	1,710
Dec.	<u>905</u>	<u>1,479</u>	<u>1,524</u>	<u>1,454</u>	<u>1,388</u>	<u>1,550</u>
Total	9,633	17,855	13,986	17,732	19,824	19,877

(a) Production for fresh market sale only.

Source: Tariff Board.

Appendix Table 3

Mushrooms: Imports by Country of Origin, 1964-1975

<u>Year</u>	<u>U.S.A.</u>	<u>Ireland</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -				
1964	1,336	-	-	1,336
1965	833	-	-	833
Average 1964-65	1,085	-	-	1,085
1966	1,611	-	-	1,611
1967	2,527	-	-	2,527
1968	2,187	-	-	2,187
1969	2,365	-	-	2,365
1970	2,228	-	-	2,228
Average 1966-70	2,184	-	-	2,184
1971	916	-	-	916
1972	668	-	-	668
1973	2,911	1	-	2,913
1974	6,067	-	-	6,067
1975	2,775	-	33	2,808
Average 1971-75	2,667	*	7	2,674

Source: Statistics Canada

Appendix Table 4

Mushrooms: Imports by Province and Region,
1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	10	11	9	86	50	55
Nfld.	*	-	*	2	*	-
N.S.	3	3	3	10	15	8
P.E.I.	4	5	3	3	5	8
N.B.	3	3	3	70	31	39
Central Region	2,061	776	433	2,468	5,739	2,612
Que.	382	22	105	1,458	3,098	1,910
Ont.	1,679	754	328	1,010	2,641	702
Western Region	113	130	227	359	277	140
Man.	103	110	170	358	250	*
Sask.	10	-	-	-	-	-
Alta.	-	2	18	1	-	10
B.C.	*	17	39	*	27	130
Canada	2,184	916	668	2,913	6,067	2,808

Source: Statistics Canada.

Appendix Table 5

Mushrooms: Imports by Month, 1966-1975

<u>Month</u>	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-74</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	242	11.1	180	6.8	8	30	588	450
Feb.	269	12.3	246	9.3	66	29	800	568
Mar.	337	15.4	360	13.6	173	72	988	382
Apr.	320	14.7	278	10.5	62	89	815	361
May	286	13.1	241	9.1	133	131	530	344
June	112	5.1	147	5.6	71	110	306	319
July	79	3.6	92	3.5	1	193	120	105
Aug.	16	0.7	117	4.4	45	249	170	60
Sept.	47	2.2	150	5.7	39	263	267	170
Oct.	94	4.3	263	10.0	47	373	630	39
Nov.	183	8.4	272	10.3	2	734	346	3
Dec.	198	9.1	295	11.2	21	639	504	5
Total	2,184	100.0	2,641	100.0	668	2,913	6,067	2,808

Source: Statistics Canada.

Mushrooms: Percentage Distribution of Fresh Market Imports from the United States by State of Origin, 1972-1974

Destination \ Origin	<u>N.Y.</u>	<u>Penn.</u>	<u>Calif.</u>	<u>Mass.</u>	<u>N.J.</u>	<u>Wash.</u>	<u>Others</u>	<u>Total</u>
				- Per Cent (a) -				
<u>1972</u>								
Atlantic Region	-	-	-	-	-	-	-	-
Central Region	5.9	94.1	-	-	-	-	-	100.0
Western Region	-	-	100.0	-	-	-	-	100.0
Canada	5.8	92.3	1.9	-	-	-	-	100.0
<u>1973</u>								
Atlantic Region	83.3	-	-	3.3	10.0	-	3.3	100.0
Central Region	-	100.0	-	-	-	-	-	100.0
Western Region	-	-	100.0	-	-	-	-	100.0
Canada	2.4	96.8	0.3	0.1	0.3	-	0.1	100.0
<u>1974</u>								
Atlantic Region	50.0	-	-	50.0	-	-	-	100.0
Central Region	-	100.0	-	-	-	-	-	100.0
Western Region	-	-	6.7	-	-	86.6	6.7	100.0
Canada	2.4	89.8	0.4	2.4	-	4.6	0.4	100.0

(a) Based on unload volumes.

Source: Agriculture Canada.

Appendix Table 7a

Mushrooms: Weekly Wholesale to Retail Prices
at Halifax and Montreal, 1974

Week Ending	Halifax			Montreal		
	Quebec		Ontario	Quebec		Ontario
	5-lb. ctn.	12-/8-oz. trays	6-lb. ctn.	5-lb. ctn.	12-/8-oz. trays	6-lb. ctn.
- cents per pound -						
Jan. 4	110.0	116.7		79.0		84.0
11	110.0	116.7		78.0		84.0
18	110.0	116.7		78.0		84.0
25	106.0	116.7		78.0		84.0
Feb. 1	106.0	116.7		77.6		82.6
8	110.0	116.7		77.6		77.6
15	110.0	116.7		77.6		77.6
22	110.0	116.7		82.6		82.6
Mar. 1	110.0	116.7		82.6		82.6
8	110.0	116.7		80.0		82.6
15	110.0	116.7		80.0	91.7	81.0
22	110.0	116.7		80.0	95.8	93.8
29	110.0	116.7		80.0	95.5	95.5
Apr. 5	110.0	116.7		80.0	95.5	95.5
12	110.0	116.7		77.6	95.0	96.7
19	110.0	116.7		77.6	95.0	96.7
26	110.0	116.7		77.6	95.0	96.7
May 3	110.0	116.7		77.6	94.7	94.7
10	110.0	116.7		77.6	94.7	94.7
17	110.0	116.7		77.6	94.7	94.7
24	110.0	116.7		77.6	94.7	94.7
31	110.0	116.7		77.6	94.7	94.7
June 7	114.0	118.3		77.6	95.5	95.5
14	114.0	118.3		77.6	95.5	95.5
21	114.0	118.3		77.6	95.5	95.5
28	114.0	118.3		77.6	95.5	95.5

Mushrooms: Weekly Wholesale to Retail Prices at Halifax and Montreal, 1974									
Week Ending	Halifax			Montreal			- cents per pound -		
	Quebec - Ontario		6-lb. ctn. 12-/8-oz. trays	Quebec		6-lb. ctn. 12-/8-oz. trays	Quebec		6-lb. ctn. 12-/8-oz. trays
	5-lb. ctn.	12-/8-oz. trays		5-lb. ctn.	12-/8-oz. trays		5-lb. ctn.	12-/8-oz. trays	
July	5	114.0	118.3	77.6	95.5	77.6	77.6	95.5	95.5
	12	114.0	118.3	77.6	95.5	77.6	77.6	95.5	95.5
	19	114.0	118.3	77.6	95.5	77.6	77.6	95.5	95.5
	26	114.0	118.3	77.6	95.5	77.6	77.6	95.5	95.5
Aug.	2	114.0	118.3	77.6	95.5	77.6	77.6	95.5	95.5
	9	114.0	118.3	82.6	98.0	82.6	82.6	98.0	98.0
	16	116.0	123.3	79.0	94.7	79.0	79.0	94.7	94.7
	23	116.0	123.3	79.0	94.7	79.0	79.0	94.7	94.7
Sept.	30	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
	6	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
	13	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
	20	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
Oct.	27	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
	4	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
	11	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
	18	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
Nov.	25	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
	1	116.0	123.3	82.6	94.7	82.6	82.6	94.7	94.7
	8	116.0	125.0	87.6	98.0	87.6	87.6	98.0	98.0
	15	116.0	125.0	87.6	98.0	87.6	87.6	98.0	98.0
Dec.	22	116.0	125.0	87.6	98.0	87.6	87.6	98.0	98.0
	29	116.0	125.0	87.6	98.0	87.6	87.6	98.0	98.0
	6	116.0	125.0	87.6	98.0	87.6	87.6	98.0	98.0
	13	116.0	125.0	87.6	98.0	87.6	87.6	98.0	98.0
	20	120.0	129.2	86.0	98.0	86.0	86.0	98.0	98.0
	27	120.0	129.2	86.0	98.0	86.0	86.0	98.0	98.0

Source: Agriculture Canada.

Mushrooms: Weekly Wholesale to Retail Prices at Toronto,
Winnipeg, and Vancouver, 1974

Week Ending	Toronto		Winnipeg		Vancouver	
	Ontario		Manitoba(a)		British Columbia	
	5-lb. ctn.	5-lb. ctn. buttons	5-lb. ctn.	2½-lb. ctn.	2½-lb. ctn.	4½-lb. ctn. 12-/6-oz. trays 10-lb. ctn.
- cents per pound -						
Jan.	4	69.0	61.0	81.0	91.2	80.5
	11	69.0	64.0	77.6	91.2	82.0
	18	69.0	64.0	81.0	91.2	80.5
	25	69.0	64.0	79.0	91.2	80.5
Feb.	1	69.0	64.0	79.0	91.2	80.5
	8	69.0	64.0	80.6	92.0	80.5
	15	69.0	61.6	80.0	92.0	80.5
	22	69.0	61.6	80.0	91.2	80.5
Mar.	1	69.0	61.6	78.6	91.2	80.5
	8	69.0	61.6	78.6	91.2	80.5
	15	69.0	61.6	78.6	91.2	80.5
	22	69.0	61.6	78.6	91.2	80.5
	29	71.0	61.6	78.6	91.2	81.5
Apr.	5	69.0	61.6	78.6	91.2	81.5
	12	69.0	61.6	78.6	91.2	80.5
	19	69.0	61.6	80.6	91.2	80.5
	26	69.0	61.6	80.6	91.2	80.5
May	3	69.0	61.6	80.0 (b)	91.2	80.5
	10	69.0	61.6	80.0 (b)	91.2	80.5
	17	69.0	61.6	80.0	91.2	81.0
	24	69.0	61.6	80.0	91.2	81.0
	31	69.0	61.6	80.0	91.2	81.0
June	7	69.0	61.6	80.0	91.2	81.0
	14	69.0	61.6	80.0	91.2	80.3
	21	69.0	61.6	80.0	91.2	80.3
	28	69.0	61.6	80.0	91.2	80.3

Mushrooms: Weekly Wholesale to Retail Prices at Toronto, Winnipeg, and Vancouver, 1974									
Week Ending	Toronto		Winnipeg		Vancouver				
	Ontario		Manitoba (a)	British Columbia	British Columbia				
	5-lb. ctn.	buttons			5-lb. ctn.	2½-lb. ctn.	2½-lb. ctn.	12-/6-oz. trays	10-lb. ctn.
July	5	69.0	61.6	80.0	90.0	91.2	94.0	80.3	
		69.0	61.6	80.0	90.0	91.2	94.0	80.3	
		69.0	61.6	81.6	90.0	91.2	94.0	80.3	
		71.6	63.6	81.6	90.0	91.2	94.0	81.0	
		74.0	66.0	86.6	90.0	91.2	94.4	81.0	
Aug.	2	74.0	66.0	80.6	90.0	91.2	94.4	81.0	
		74.0	67.6	80.6	90.0	91.2	94.4	81.0	
		76.6	67.6	82.0	90.0	91.2	94.4	81.0	
		77.6		82.0 (b)	90.0	91.2	94.4	81.0	
		80.0	73.6	81.0	90.0	91.2	94.0	81.0	
Sept.	6	82.6	77.6	87.0	94.0	91.2	94.0	81.0	
		81.0	74.0	90.0	94.0	91.2	94.0	81.0	
		78.6	69.0	90.0	94.0	91.2	94.0	81.0	
		77.0	70.0	90.0	98.0	91.2	94.0	81.0	
		76.6	71.0	90.0	98.0	91.2	94.0	81.0	
Oct.	11	77.0	71.0	90.0	98.0	91.2	94.0	81.0	
		76.6	71.0	90.0	98.0	91.2	94.0	81.0	
		77.0	71.0	90.0	98.0	91.2	94.0	81.0	
		76.6	70.0	90.0	98.0	91.2	94.0	81.0	
		75.6	69.0	90.0	98.0	91.2	94.0	80.5	
Nov.	1	76.0	69.0	90.0	98.0	91.2	94.4	80.5	
		74.0	69.0	90.0	98.0	91.2	91.8	79.3	
		72.6	67.6	90.0	98.0	90.0	91.8	79.3	
		72.6	66.6	90.0	98.0	90.0	91.8	79.3	
		72.6	66.6	90.0	98.0	92.0	94.4	79.3	
Dec.	6	72.6	66.6	90.0	98.0	92.0	96.2	80.3	
		72.6	66.6	90.0	98.0	92.0	96.2	80.3	
		72.6	66.6	90.0	98.0	92.0	96.2	80.3	
		72.6	67.6	90.0	98.0	92.0	96.2	80.3	
		72.6		90.0	98.0	92.0	96.2	80.3	

- cents per pound -

(a) Includes Ontario from April 26 to May 31 and June 21 to September 27.
(b) Cents per pound for May 10 and 17 was 82.0 and 80.6 for August 30.

Mushrooms: Growing Area, Production, Yield per Square Foot, Crop Value, Crop Value per Pound and Unit Value of Production in the United States, 1966-1972(a)

	<u>Average 1966-70</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Area in Production, '000 sq. ft. -							
Total	83,710	87,490	93,798	102,315	107,584	110,921	103,655
- Production, '000 lb. -							
Total	187,000	206,810	231,373	254,002	279,493	299,081	265,987
- Average Yield, lb. per sq. ft. -							
Total	2.23	2.36	2.47	2.48	2.60	2.70	2.57
- Crop Value, \$'000 -							
Total	69,972	89,620	106,882	109,975	123,354	147,242	121,863
- Crop Value, ¢ per lb. -							
Total	37.4	43.3	46.2	43.3	44.1	49.2	45.8
- Sold to the Fresh Market, \$'000 -							
Total	25,288	31,688	38,386	42,596	58,407	76,552	53,985
- Sold for Processing, \$'000 -							
Total	44,684	57,932	68,496	67,379	64,947	70,690	67,878

(a) Based on July-June crop year.

Source: United States Department of Agriculture.

Mushrooms: Dutiable Imports and the Ad Valorem Equivalent of the M.F.N. Specific Duty									
Year	Total '000 lb.	Non-Dutiable '000 lb.	Dutiable		Price, f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %		
			'000 lb.	%					
1966	1,611	-	1,611	100.0	29.5	4.5	15.3		
1967	2,527	-	2,527	100.0	33.0	4.5	13.6		
1968	2,187	-	2,187	100.0	32.8	4.5	13.7		
1969	2,365	-	2,365	100.0	35.2	4.5	12.8		
1970	2,228	25	2,203	98.9	37.3	4.5	12.1		
Average 1966-70	2,184	5	2,179	99.8	33.8	4.5	13.3		
1971	916	1	915	99.9	44.0	4.5	10.2		
1972	668	1	667	99.8	42.2	4.5	10.7		
1973	2,913	2	2,911	99.9	39.9	4.5	11.3		
1974	6,067	8	6,059	99.9	38.1	4.5	11.8		
1975	2,808	5	2,803	99.8	43.5	4.5	10.3		
Average 1971-75	2,674	3	2,671	99.9	40.3	4.5	11.2		

Source: Statistics Canada.

OKRA

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OKRA

Okra (Hibiscus esculentus), also called gumbo or quingumbo, is an annual requiring warm growing conditions. It is widely cultivated in tropical and subtropical countries.

The edible part of the okra plant is the fruit, an immature pod which contains numerous oval, dark-coloured seeds, hairy at the base. The unripe fruit is eaten either pickled or prepared like asparagus. It is also used as an ingredient in various dishes (e.g., the gumbo of the southern United States), and because of the large amount of mucilage in okra, it is extensively used for thickening broths and soups.

PRODUCTION AND CONSUMPTION

Because of the long warm growing season required for its cultivation, okra is not grown commercially in Canada. Thus, total domestic requirements are met from imports. The United States is the main supplier, 78 per cent of 1974 imports, followed by Jamaica (see Appendix Table 1).

Total imports have grown considerably in recent years, from an annual average of 112,000 pounds during 1966-70 to 275,000 pounds in 1971-74, an increase of 146 per cent. In 1974, imports were 339,000 pounds, for a total value of \$78,155 or 23.1 cents per pound. The growth in consumption would seem attributable to the increase in immigration by ethnic groups from countries where okra is commonly eaten.

TARIFF CONSIDERATIONS

Okra is classified under tariff item 8716-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Okra	Free	Free	30 p.c.

Tariff item 8716-1 has remained unchanged since the introduction of a separate item for okra in April, 1959. Okra was previously entered duty-free under an item introduced in 1950 for witloof or endive, artichokes, horseradish and okra. The item is bound under GATT.

No party appearing before the Board proposed that tariff item 8716-1 be changed either as to nomenclature or rates of duty.

CONCLUSIONS

The Board feels that, in the absence of domestic production or of its development, an increase in the rate of duty would only raise the cost of okra to the Canadian consumer. Moreover, it is noted that imports of these vegetables are not in significant volume and, additionally, there does not appear to be any necessity to record such importations separately for statistical purposes. Accordingly, the Board recommends that okra be classified under the tariff item for vegetables, fresh, "n.o.p., of a class or kind not produced in Canada" with free entry under all tariffs.

RECOMMENDATIONS

The Board recommends that present tariff item 8716-1 be deleted from Schedule "A" of the Customs Tariff. It is further recommended that future imports of okra be classified as vegetables, fresh, "n.o.p., of a class or kind not produced in Canada."

Okra: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Jamaica</u>	<u>Mexico</u>	<u>Greece</u>	<u>Trinidad</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -							
1966	48	-	-	27	-	-	75
1967	65	-	-	-	-	-	65
1968	86	3	4	-	-	-	93
1969	93	17	*	-	-	-	110
1970	123	16	10	66	2	*	216
Average 1966-70	83	7	3	19	*	*	112
1971	136	45	1	16	1	-	199
1972	178	46	6	-	*	2	232
1973	227	57	38	-	4	6	331
1974	265	52	5	2	13	2	339
1975	670	89	12	*	38	1	811
Average 1971-75	295	58	12	4	11	2	382

Source: Customs documents, tabulated by Statistics Canada.

ONIONS

The following study on onions is, pursuant to classifications used in the Customs Tariff, divided into three reports covering, separately: (a) dry onions, (b) green onions, and (c) onion sets.

Dry onions refer to those harvested in the mature state for their fleshy bulbs which are consumed as a vegetable. Green onions are essentially any type that is harvested in the green, or immature, state. The stalk or top of this type of onion is eaten along with the small bulb, although there are some kinds that do not form bulbs. Onion sets are not cultivated for consumption. They are sold dried and are used, as an alternative to direct seeding, in the propagation of onions.

The existing tariff nomenclature on onions uses the term "shallots" and "green onions." Strictly speaking, in botanical terms, the shallot is a different species (Allium ascatonicum) from the prevalent species of green or dry onion (A. cepa). However, in Canada, the term shallot is often used by the fresh produce trade interchangeably with the term green onion. Moreover, statistics do not differentiate between green onions grown from A. cepa and green onions, or "shallots," grown from A. ascatonicum. Accordingly, the term green onion in the following reports refers to green onions grown from all species of onions.

The data presented also, exclude certain vegetables similar to onions, i.e., leeks (A. porrum) and chives (A. schoenoprasum). These are discussed under "other vegetables."

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DRY ONIONS

The common bulb onion is known botanically as Allium cepa. While the genus Allium was formerly classified under the family Liliaceae, it has recently been reclassified under the family Amaryllidaceae. The onion is believed to have originated in Asia and was introduced into the Americas by early European settlers.

The following study is confined to "dry onions" as distinct from "green onions" and "onion sets." In Canada, the main type of domestically grown dry onion is the "yellowseed" or yellow cooking onion which is grown from seed and is suitable for long-term storage. This principal onion type may also be grown from sets for the early market. Other types grown in Canada, but only to a minor extent, include "silverskin" and "Sweet Spanish" onions. Both of these may be used as a table vegetable. The former, however, is often sold for processing into pickles and the latter, for processing into deep-fried onion rings. Other types of dry onions not grown in Canada, such as "Red Creole," "Early Grano" and various white onions, are imported. Dry onions are used as main vegetable dishes, as flavourings in meat dishes or as sliced or diced ingredients in salads. They are mainly sold for direct consumption; their use for processing (pickled, rings, soups and relish mixes) is minor.

Dry onions are a major vegetable crop in Canada and, in 1971-74, had a farm value averaging \$9.3 million. Annual per capita consumption remained almost unchanged from 1961-65 to 1971-74.

GROWING AND HARVESTING

Different types of onions have varied requirements as to planting time, growing season and harvesting methods. However, certain characteristics of cultivation are common to dry onions, green onions and onion sets, and these are discussed below.

Onions are a reasonably frost tolerant, fairly hardy crop grown best on well-drained, light soils with ample organic matter. They have sparse fibrous root systems and weak and tender seedlings. Because of these features, they develop best on friable, non-baking soils where moisture supply is uniform and adequate. Irrigation is important to supply necessary moisture regularly to the shallow root system. Over-watering or an excessively high water table tends to produce "thicknecks," also called "scallions," of inferior quality. Weed control is also important and accounts for a major share of production costs. Either mechanical or chemical weed control (especially on large acreages) may be used.

Onions require a relatively long growing season and, thus, benefit from long, sun-filled days and high summer temperatures. When grown from seed, they are normally planted as early as possible. Where a season is not long enough for a certain variety, (e.g., Sweet Spanish) it may be necessary to grow seedlings in a greenhouse and then transplant. Greenhouse seedlings or onion sets may also be used to produce early market crops. However, the bulk of the domestic dry onion crop is grown direct from seed.

When dry onions are grown from seed, it is advantageous to use precision seeding to eliminate thinning, obtain more uniform spacing and prevent over-crowding. However, especially in small-scale plantings, if seed is sown more thickly than desirable, thinned-out plants may be sold as green onions. Onions grown from seed are usually sown in late April and May, as soon as the soil can be properly worked. Later seeding may result in poor maturity, poor keeping quality and a high proportion of scallions.

Dry onions grown from sets are planted by hand or by machine. Hand planting is costly thus commercial growers producing from sets normally use one- or two-row planting machines. While the use of sets, as opposed to direct seeding, permits an earlier harvest and minimizes insect damage to foliage (onion thrips), returns may not always justify the additional costs.

Onions for pickling, usually silverskins, are cultivated, like onion sets, by crowding them together through dense seeding. Bulbs are harvested when they reach the desirable pickling size of $\frac{3}{4}$ inch to $1\frac{1}{2}$ inches in diameter.

As the growing period for the Sweet Spanish onion is normally too short for direct seeding in Canada, growers generally start the plants indoors and transplant them later as seedlings. Relatively wide spacing is used with this onion type because of the demand for "jumbo-sized" onions.

When harvesting dry onions, bulb maturity is indicated by softening of the neck tissues and by falling over of the tops. Dry onions for storage keep better if fully ripened prior to harvesting. Pulling is done by hand or by machine, with machine lifters being preferable where large acreages are involved. Dry onion varieties are normally "cured" after pulling, to dry the bulbs, develop skin colour and minimize disease development during storage. Curing, or drying, may be accomplished by leaving them in the field after they are pulled and bagged. Another method is to place the bulbs in special drying facilities.

Dry onions may be stored using "common" or refrigerated storage. They store best under cool and moderately dry conditions (0°C and 70-75 per cent relative humidity) with good air circulation. Under such conditions, the principal type of dry onion (yellow cooking) stores well for up to nine months. However, other types of dry onions may not store well for long periods. The Sweet Spanish, in particular, has a limited storage life and is not stored to any significant extent in Canada.

ACREAGE, PRODUCTION AND FARM VALUE

Acreage, production and farm value data are shown in Table 1. This table refers predominantly to yellowseed onions but data for white onions and Sweet Spanish are also included. Domestic production of Sweet Spanish and white onions is small in comparison with that of yellowseed onions.⁽¹⁾ Excluded from Table 1 are green onions and the

(1) Ontario figures for 1973 and 1974 show production of the Spanish-type onion as being about 9.7 million pounds and that of the white (silverskin) onion being only 392,500 pounds.

bulk of onion set production (grown in Ontario). A small portion of onion set production may be included as output of these could not be broken out for each region or province.

Acreage under dry onion cultivation in Canada - 8,178 acres in 1971-74 - has declined slightly since 1961-65 and there has been no pronounced shift in the regional location of acreage during the review period. Quebec and Ontario accounted for about 80 per cent of the total acreage in 1971-74.

A comparison of 1961-65 and 1971-74 production averages indicates that production has tended to decline, from 211.7 million pounds to 192.0 million pounds, a decrease of about 9 per cent. However, the 1971-74 average was affected significantly by an abnormally poor crop in 1972 owing to heavy rains during the growing season in Quebec and Ontario.

The dry onion crop is concentrated in the central provinces which produced 84 per cent of the total output in 1971-74. Ontario is the most important producer, accounting for well over half the Canadian output. Only a small part of the crop is produced in British Columbia and the Prairies. Maritime production is negligible. The recent decline in acreage and production in Ontario can be partially attributable to a decrease in certain overseas export markets.

The Canadian average yield per acre for this crop has declined by about 5 per cent between 1961-65 and 1971-74, from 24,850 to 23,474 pounds. However, the latter average was influenced by unusually poor yields experienced in 1972. Yields in Ontario have been, on average, conspicuously higher than in Quebec, the second most important Canadian producer. Yields in British Columbia, a relatively small producer, have in most years greatly exceeded Quebec's. For 1971-74, the British Columbia yield has not been, in fact, much below the Ontario average. As shown in Table 1, yields have tended to decrease in Ontario and Quebec while they have risen in the Prairie region and in British Columbia. In the central region, despite improvements in varieties and cultivation techniques, there have been problems in obtaining improved yields. Industry spokesmen say continued cultivation of onions in nearly ideal muck soils results in a loss of topsoil. They also say that the monoculture of onions on mineral soils tends to deplete organic matter when crop rotation is not employed.

Total farm value of dry onions rose from \$5.2 million in 1961-65 to \$9.3 million in 1971-74, an increase of 80 per cent. Particularly notable was a sharp increase from \$6.2 million in 1971 to \$12.1 million in 1972, the highest farm value recorded. In that year, farm prices rose in response to the drop in production.

The average farm value per pound for dry onions was 4.9 cents in 1971-74 as against 2.5 cents in 1961-65, an increase of 96 per cent. In 1972, farm value per pound averaged 7.2 cents. Average unit farm values in Table 1 principally exhibits the prevailing fresh market price since only minor quantities of this crop are sold for processing. These average prices, moreover, mainly reflect the price of yellow cooking onions. Farm values per pound are higher for Sweet Spanish and silverskins.

Table 1: Onions, Dry^(a): Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Quebec	2,496	2,400	2,720	2,800	2,890	2,780	2,798	+ 12.1
Ontario	4,131	4,089	3,860	3,623	4,040	3,976	3,875	- 6.2
Prairies	1,342	1,135	950	950	900	620	855	- 36.3
B.C.	552	576	640	700	660	600	650	+ 17.8
Canada	8,521	8,200	8,170	8,073	8,490	7,976	8,178	- 4.0
- Production, '000 lb. -								
Quebec	51,018	56,295	86,224	36,400	40,460	48,928	53,003	+ 3.9
Ontario	130,886	118,173	102,595	96,553	124,065	108,060	107,818	- 17.6
Prairies	16,955	14,511	15,393	16,000	18,324	6,637	14,089	- 16.9
B.C.	12,885	15,027	15,438	17,930	16,966	17,892	17,057	+ 32.4
Canada	211,744	204,006	219,650	166,883	199,815	181,517	191,967	- 9.3
- Average Yield, lb. -								
Quebec	20,440	23,456	31,700	13,000	14,000	17,600	18,943	- 7.3
Ontario	31,684	28,900	26,579	26,650	30,709	27,178	27,824	- 12.2
Prairies	12,634	12,775	16,203	16,842	20,360	10,705	16,478	+ 30.4
B.C.	23,342	26,089	24,122	25,614	25,706	29,820	26,242	+ 12.4
Canada	24,850	24,879	26,885	20,672	23,535	22,758	23,474	- 5.5
- Farm Value, \$'000 -								
Quebec	1,347	1,616	2,052	1,565	1,942	2,202	1,940	+ 44.0
Ontario	2,742	3,165	2,746	8,052	5,841	4,771	5,353	+ 95.2
Prairies	573	604	641	1,190	1,397	464	923	+ 61.1
B.C.	535	743	769	1,262	1,272	1,165	1,117	+108.8
Canada	5,197	6,128	6,208	12,069	10,452	8,602	9,333	+ 79.6
- Farm Value, ¢ per lb. -								
Quebec	2.6	2.9	2.4	4.3	4.8	4.5	3.7	+ 42.3
Ontario	2.1	2.7	2.7	8.3	4.7	4.4	5.0	+138.1
Prairies	3.4	4.2	4.2	7.4	7.6	7.0	6.6	+ 94.1
B.C.	4.2	4.9	5.0	7.0	7.5	6.5	6.5	+ 54.8
Canada	2.5	3.0	2.8	7.2	5.2	4.7	4.9	+ 96.0

(a) Excludes Ontario onion sets.

Source: Statistics Canada and provincial data.

SUPPLY AND DISPOSITION

In 1971-74, 85 per cent of Canada's dry onion crop was sold to domestic fresh markets, 14 per cent was exported, and the rest, about 1 per cent, went for processing (see Table 2). Corresponding figures for 1961-65 are 74 per cent, 24 per cent and 2 per cent. Output between 1961-65 and 1971-74 declined by about 9 per cent and exports fell markedly causing domestic growers to become more dependent on the domestic market.

Of Canadian imports of dry onions, about 95 per cent are for fresh market sale; the rest are for processing. Principally because of rising fresh market imports, total import volumes have exhibited a substantial increase since 1961. They averaged 60.1 million pounds in 1961-65 compared with 83.8 million pounds in 1971-74. The bulk of this import growth took place in the latter half of the 1960s. Imports increased more slowly during the 1970s, no doubt because more of the Canadian crop was available for the domestic market as exports declined.

Total domestic disappearance of dry onions increased by about 13 per cent during the review period, from 220.3 million pounds in 1961-65 to 249.1 million pounds in 1971-74. On a per capita basis, however, consumption remained constant. It was an estimated 11.6 pounds per person in 1961-65 and 11.3 pounds in 1971-74. Per capita consumption of processed onions was only about 0.3 pounds in 1971-74.

With respect to the fresh market, dry onion imports rose markedly from 1961-65 to 1966-70. Domestic sales remained about the same in this period but Canadian producers lost a share of the fresh market to import competition. In 1961-65, imports comprised about 27 per cent of fresh market sales; in 1966-70, this share rose to about 34 per cent. A comparison of 1966-70 data with that for 1971-74 suggests that domestic growers may have arrested the decline in their market share in recent years. Imports comprised an estimated 33.7 per cent of the domestic fresh market in 1966-70 and declined to an estimated 32.9 per cent in 1971-74.

Increased shipments of Canadian produce to the domestic fresh market may reflect a drop in export sales and, consequently, more vigorous competition in the home market. However, export volumes cannot necessarily be diverted easily to domestic markets. Canada's western provinces account for a major share of imports and, in this market, nearby U.S. producers, particularly in Washington, appear to enjoy a freight cost advantage. Transport costs may thus not make it viable to divert export surpluses in the central region to western Canadian markets.

Domestic producers show a weakened position in the relatively minor processing market. Production in Canada accounted for about 40 per cent of domestic acquirements for processing in 1971-74 compared with 80 per cent in 1961-65. This trend was evidently due to an increased demand for imported Sweet Spanish onions for deep-fried onion rings. While this type of onion is grown in Canada, domestic food product manufacturers rely heavily on imports to meet

Table 2: Onions, Dry^(a): Supply and Disposition, Canada, Crop Years, 1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74	% Change 1961-65 to 1971-74
Total Production	211,744	204,006	219,650	166,883	199,815	181,517	191,967	- 9.3
Total Imports ^(b)	60,110	79,992	71,013	86,114	76,693	101,537	83,839	+ 39.5
Total Supply Available	271,854	283,998	290,663	252,997	276,508	283,054	275,806	+ 1.5
Available for Processing ^(d)								
From domestic production	5,075	4,463	5,600	5,525	6,950	7,500	6,394	+ 26.0
From fresh imports	4,123	3,836	2,750	2,200	2,200	2,750	2,475	- 40.0
	952	627	2,850	3,325	4,750	4,750	3,919	+311.7
Available for fresh market	266,779	279,535	285,063	247,472	269,558	275,554	269,412	+ 1.0
From domestic production	207,621	200,170	216,900	164,683	197,615	178,767	189,492	- 8.7
Imported	59,158	79,365	68,163	82,789	71,943	96,787	79,920	+ 35.1
Total Exports ^(c)	51,537	44,308	35,253	28,008	21,351	22,243	26,714	- 48.2
Total Domestic Disappearance	220,317	239,690	255,410	224,989	255,157	260,811	249,092	+ 13.1
Consumed in processed form	5,075	4,463	5,600	5,525	6,950	7,500	6,394	+ 26.0
From domestic production	4,123	3,836	2,750	2,200	2,200	2,750	2,475	- 40.0
From fresh imports	952	627	2,850	3,325	4,750	4,750	3,919	+311.7
Fresh market consumption	215,242	235,227	249,810	219,464	248,207	253,311	242,698	+ 12.8
From domestic market	156,084	155,862	181,647	136,675	176,264	156,524	162,778	+ 4.3
Imported	59,158	79,365	68,163	82,789	71,943	96,787	79,920	+ 35.1

(a) Excludes onion sets.

(b) Fresh imports only.

(c) Fresh exports only; includes re-exports.

(d) Tariff Board estimates.

Source: Derived from Statistics Canada and Agriculture Canada data.

processing needs. According to information from processors, probably all the dry onions that entered for processing in 1971-74 (3.9 million pounds) were Sweet Spanish.

Since yellowseed onions are storable for up to nine months, they are, to some extent, sold throughout the year, either direct from the field or from storage (see Appendix Table 3). However, the main marketing season is from August to April. Based on the 1971-74 average, only some 9 per cent of annual output is marketed in May, June, and July. From storage holdings data (see Appendix Table 12), it is evident that more than half of this vegetable is stored for shipment during winter and spring. Based on reported storage volumes as at November 1st for 1971-74, an estimated 54 per cent of total domestic production is stored, with the remainder moving direct from the field for export sale, processing or the fresh market. However, the share of production moving into storage varies by region. In Ontario and British Columbia, about 65 per cent and 61 per cent, respectively, of production is stored. Comparable figures for Quebec and the Prairies are much lower (37 per cent and 23 per cent, respectively).

Appendix Table 4 shows that, based on 1971-74 data, domestic supplies met the bulk of fresh market demand from August to April. Imports accounted for most fresh market consumption, on the other hand, during May, June, and July when domestic supplies were largely depleted.

The improvement between 1966-70 and 1971-74 in the competitive position of Canadian growers appears to have resulted from increased domestic shipments in April, May, and June. Gains in these months have more than offset increasing import competition in other months, particularly August. As shown in Table 3, below, in the April-June period, Canadian producers increased their share of the domestic fresh market from about 32 per cent in 1966-70 to 43 per cent in 1971-74. This favourable trend is a result of improved storage condition and techniques that permitted onions to be stored longer without deterioration.

Table 3: Onions, Dry: Fresh Market Shipments, Imports and Consumption, April, May, and June, 1961-1974

	<u>1961-65</u>	<u>1966-70</u>	<u>1971-74</u>
	- '000 lb. -		
From domestic production	13,829	16,521	22,885
From imports	<u>30,585</u>	<u>35,754</u>	<u>30,514</u>
Fresh market consumption	44,414	52,275	53,399
Domestic sales as a per cent of fresh market consumption	31.1	31.6	42.9

Source: Derived from Statistics Canada data.

Within Canada, only Ontario markets interregionally to any extent. Unloads information for recent years indicates that Ontario ships a substantial portion of its fresh market production to the Atlantic region where output is negligible. This province also supplies the Prairies but normally does not ship into British Columbia. Based on a 1974 unloads distribution, for example, about 11 per cent of Ontario fresh market production was sold in the Maritimes and 5 per cent in the Prairies. In recent years, Quebec has mainly marketed its crop in Ontario and Quebec. The British Columbia crop is sold primarily within that province and to some extent in Alberta. Unloads information also shows that dry onions produced in the Prairies are sold only within the three Prairie Provinces.

IMPORTS

In 1971-75, the United States supplied 93 per cent of total imports compared with 84 per cent in 1966-70 (see Appendix Table 5). Other suppliers included Spain, New Zealand, Chile, and Mexico. As noted, only a minor proportion of total imports consisted of fresh produce for processing. U.S. fresh market imports originate mainly in California, Oregon, Texas, and Washington (see Appendix Table 8). Despite transport costs, western states such as California and Washington export to fresh markets in the central and Maritime regions.

In recent years, the volume of dry onions entered into the central region has been about equal to imports into the western provinces. For 1971-75, the central region accounted for 46 per cent of total imports compared with 47 per cent for the western provinces and 7 per cent for the Atlantic region. Corresponding figures for 1966-70 are 55 per cent, 38 per cent and 7 per cent. A comparison of 1966-70 and 1971-75 data thus indicates that imports into western provinces have comprised a rising share of total imports. Increased imports into the western region appear to have resulted from an increased consumption not matched by regional production growth. At the same time, shipments into this region from Ontario appear to have declined.

The importance of foreign supplies, relative to consumption, varies significantly by region. Based on estimates for 1971-74, imports meet about half the fresh market demand in the western region. In contrast, imports constitute a much lesser share (about 20-25 per cent) of fresh market consumption in the central region where most of the crop is grown. In the Maritimes, imports comprised 40-45 per cent of fresh market consumption. More than half the demand was supplied by Ontario.

EXPORTS

Canada exports dry onions primarily to the United Kingdom and to the Caribbean area (see Appendix Table 9). Export markets have also been developed in the United States, western Europe, and Guyana. Canada's shipments to the United Kingdom have dropped significantly in recent years, from an average of 26.3 million pounds in

1966-70 to 13.0 million pounds in 1971-75. As a result of this decline, export volumes have been reduced sharply and the relative importance of various export markets have been altered. In the former period, shipments to the United Kingdom made up 61 per cent of total export sales compared with 46 per cent in 1971-75. Canada's much weakened position in the U.K. market may be attributed to that country's recent entry into the EEC.

Export sales are mainly from storage. Data showing exports by month (see Appendix Table 10) indicate that in 1971-74 probably 80 per cent of exports were storage onions if it is assumed that export shipments from December through July are from storage.

Canada's dry onion exports originate predominantly in Ontario. Certain problems attended the compilation of the export data shown in Appendix Table 11. In this table, exports are presented according to port of shipment and do not necessarily indicate the actual province of origin. Exports via Maritime ports, or through the port of Montreal, to a large extent reflect export shipments from Ontario. From other sources,⁽¹⁾ it is estimated that Ontario accounted for 93 per cent of total Canadian exports during the four crop years 1971-72 to 1974-75. While occasional exports are recorded by British Columbia and Manitoba (see Appendix Table 11), exports by western provinces may be considered negligible.

PRICES

The farm-gate selling price for dry onions averaged 4.9 cents per pound for 1971-74 (see Table 1). This price essentially reflected the average price of the yellowseed onion sold on the fresh market. Prices differ according to type of onion, however, as shown by Ontario data. For 1973 and 1974, for example, the average Ontario farm-gate price for yellowseed onions was 5.1 cents per pound compared with 6.9 cents for Sweet Spanish and 15.1 cents for silverskins.⁽²⁾ However, the data does not differentiate between sales for processing and those for the fresh market. However, most yellowseed onions are sold on the fresh market while silverskins, and a substantial share of Sweet Spanish production, are used for processing.

Wholesale-to-retail price quotations for 1974 are in Appendix Tables 13a and 13b. These tables do not show the full range of quotations available because not all pack sizes or grade breakdowns are reproduced and import price data for "white" onions is excluded. With reference to yellowseed, the most important dry onion type, wholesale prices for domestic and imported produce in five major markets are summarized in Table 4 below:

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- (1) Crop and Seasonal Price Summaries - Fresh and Processed Fruits and Vegetables, Agriculture Canada, 1973-74, Part II, Volume 27.
- (2) Seasonal Fruit and Vegetable Report, 1974, Ontario Ministry of Agriculture and Food.

Table 4: Wholesale-to-Retail Selling Prices for Domestic and Imported Dry Onions in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974^(a)

	<u>Halifax</u>		<u>Montreal</u>		<u>Toronto</u>		<u>Winnipeg</u>		<u>Vancouver</u>	
	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>
	- ¢ per lb. -									
Jan.	16.1	-	9.1	16.1	8.6	16.2	10.4	15.6	11.2	15.2
Feb.	18.9	-	10.9	20.8	10.3	20.7	12.4	21.7	14.6	23.1
Mar.	18.2	-	9.1	16.3	8.6	13.6	9.9	16.8	14.1	22.4
Apr.	14.4	-	5.8	10.7	7.4	10.2	7.7	11.4	11.8	19.3
May	13.7	17.1	6.0	11.5	6.6	10.3	9.7	10.1	10.8	13.5
June	-	16.1	7.6	11.4	8.2	10.3	9.5	9.2	-	11.5
July	-	17.7	11.8	12.4	8.7	10.8	-	9.9	-	11.6
Aug.	18.6	19.7	10.8	13.4	10.0	10.8	-	11.0	9.3	11.7
Sept.	15.7	-	6.9	11.9	7.5	-	10.0	11.2	9.9	12.2
Oct.	13.7	-	6.1	11.6	6.6	-	9.4	10.4	9.7	12.7
Nov.	13.3	-	5.8	10.9	6.5	-	8.0	9.3	9.4	12.2
Dec.	13.6	-	6.1	10.2	6.2	-	7.9	8.0	9.0	11.7

(a) Based on quotations for yellow cooking onions in 50-pound bags, except in the Halifax market (yellow cooking onions - 3-pound cellos).

Source: Appendix Tables 13a and 13b.

An intermarket comparison indicates domestically grown dry onions are generally marketed at higher prices in Vancouver and Winnipeg than in Montreal and Toronto.⁽¹⁾ Import prices are, on the whole, similar in Montreal, Toronto, and Winnipeg but slightly higher in Vancouver.

In each market, the import price per pound of imported yellow onions is almost invariably higher than the domestic price, particularly in winter and spring. Imports thus do not appear to compete in Canadian fresh markets on the basis of lower prices.

It may be pointed out that import statistics do not provide any indication as to the type of dry onions that enter Canada. The frequency of wholesale quotes for Spanish-type onions (see Appendix Tables 13a and 13b) suggests that Sweet Spanish onions may comprise a substantial share of dry onions entered for fresh market sale.

Respecting imports from the United States, invoice cost data was collected by the Tariff Board for four major urban centres. This information is set forth in full in Appendix Tables 14a and 14b and summarized below:

(1) Halifax quotations cannot be validly included because they are based on smaller packs (3-pound cellos).

Table 5: Onions, Dry: Landed Cost in Toronto, Montreal, Winnipeg, and Vancouver, 1972-1974

		<u>Cost f.o.b.</u>	<u>Freight, Brokerage, etc.</u>	<u>Duty^(a)</u>	<u>Total Landed Cost</u>
		- range in ¢ per lb. -			
Toronto	1972	5.2 - 9.0	2.3 - 2.9	0.6 - 1.5	9.0 - 12.9
	1973	5.5 - 11.4	2.1 - 3.2	0.8 - 1.5	9.6 - 15.4
	1974	3.4 - 6.9	2.6 - 3.7	0.5 - 1.5	8.2 - 11.5
Montreal	1974	3.1 - 5.6	2.8 - 3.7	0.3 - 1.5	6.2 - 10.1
Winnipeg	1974	4.0 - 8.5	2.5 - 4.1	0.4 - 1.5	8.5 - 13.9
Vancouver	1974	4.0 - 5.7	1.1 - 3.7	0.4 - 1.5	6.6 - 8.7

(a) The M.F.N. specific duty on dry onions is 1.5 cents per pound. Duty cost may be much less where the 10 per cent ad valorem rate applies.

Source: Appendix Tables 14a and 14b.

While Table 5 shows a wider range of costs, based on 1974 invoice information, the f.o.b. cost of dry onions was normally 4 to 6 cents, with freight and associated charges usually being between 2.5 and 3.5 cents. Similarly, total landed cost in 1974 ranged from about 8 to 11 cents and was lowest in Vancouver. Roughly speaking, freight costs comprise 30-40 per cent of landed cost in most markets. The seasonal specific duty on dry onions of 1.5 cents per pound was generally about half the freight and brokerage charges. Hence, domestic growers receive significantly more actual protection through freight costs than from the specific duty itself. Imports into Vancouver are a possible exception, given the relatively low freight charges from California and Oregon into that market. The Board has no transport cost information for onions imported from other countries (e.g., Spain, New Zealand, and Chile) but assumes that overseas shipments would entail ocean freight costs well above rail or truck freight costs from U.S. growing regions.

CANADA-UNITED STATES COMPARISONS

U.S. dry onion production averaged 3,021.5 million pounds in 1971-74 - almost 16 times greater than that in Canada. The principal growing areas are, in order of importance, California, Idaho, Oregon, Texas, New York, and Michigan (see Appendix Table 15).

Production of this vegetable in the United States comprises three separate crops (spring, summer and "storage"). The storage or fall crop is the most important. In contrast, Canada has only one, the storage crop. California and Texas have large spring crops and are major exporters to Canada (see Appendix Table 8). Unloads data

by month indicate these states chiefly ship to Canada in May, June, and July. Favourable climatic conditions permit California and Texas growers to market, from early crops, dry onions in Canada during spring and summer months. At that time, competition from domestically grown onions is limited because towards the end of the storage period such supplies are running out. Major producing states in the north and north-eastern United States (e.g., Michigan and New York), which have a growing season similar to Canada's, do not compete to any significant extent in the Canadian market. On the other hand, certain north-western states (e.g., Oregon, Idaho, and Washington) export in volume to Canadian markets, particularly into western Canada. Exports from these latter states appear to take place mainly in Canada's harvesting season but also occur from storage supplies in the spring months.

In 1971-74, dry onion yields averaged 29,660 pounds per acre in the United States compared with 23,474 pounds in Canada. Yield differentials are particularly pronounced between major growing regions in the respective countries. For example, 1971-74 yields in California and in the Idaho-Oregon growing area averaged 31,802 and 48,291 pounds per acre, respectively, compared with 27,824 pounds per acre in Ontario. Higher U.S. yields for this crop do not appear, however, to have resulted in lower farm selling prices.

Exports of U.S. dry onions go to many countries but Canada and Japan are main markets. For 1971-74, sales to Canada and Japan comprised 58 and 25 per cent, respectively, of total U.S. exports. Only a small share of U.S. output enters into export trade (5 per cent during 1971-74) whereas in Canada the corresponding figure is 14 per cent.

While the Board was able to obtain data pertaining to domestic production costs (British Columbia and Ontario) vis-à-vis U.S. production costs (California and Texas), the data assembled had serious inconsistencies and are not presented. A substitute indication of costs is afforded through price comparisons if it is assumed that unit farm values in Canada and the United States, in the long run, also reflect production costs. For 1971-74, for example, the farm-gate price for dry onions in Canada averaged 4.9 cents per pound (see Table 1) compared with a somewhat higher U.S. average of 5.2 cents per pound (see Appendix Table 15). A comparison of such farm-gate prices also suggests that Ontario had somewhat higher production costs than California but roughly similar costs to Idaho-Oregon, Michigan and New York. In any event, any production cost differences between Canadian and U.S. growers appear to be much less than the freight charge (usually 2.5 to 3.5 cents per pound) facing U.S. producers competing in the Canadian market. Transportation costs, or proximity to market does not provide any advantage to Canadian growers who ship interprovincially, because they incur considerable freight costs as well.

TARIFF CONSIDERATIONS

The existing Customs Tariff provides for several tariff items which pertain to onions: tariff item 8803-1⁽¹⁾ ("onion seedlings for replanting"), tariff item 8400-1 ("onion sets and shallots, in their natural state"), tariff item 8728-1 ("green onions") and tariff item 8717-1 ("onions, n.o.p."). Dry onions (i.e., fully matured "bulb" onions) are entered under the latter n.o.p. tariff item. A minor exception to this might arise in the case of shallots, since dry or green, they would be classified under tariff item 8400-1.⁽²⁾ Although onion sets are also a form of dry onion, they are used for propagation rather than consumption and are classified with shallots.

Tariff item 8717-1, under which virtually all dry onions for consumption are classified, is as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Onions, n.o.p. per pound	Free	1½ cts. or 10 p.c.	1½ cts. or 10 p.c.

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 44 weeks which may be divided into two separate periods, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

In the above form, the item has existed since 1959 and is bound under GATT. Free entry for onions from New Zealand is bound under the Canada-New Zealand Trade Agreement.

On a temporary basis, the 10 p.c. alternate rate under the Most-Favoured-Nation and General Tariff was suspended, and free entry substituted for the period February 20, 1973 to June 30, 1974 and again from November 19, 1974 to June 30, 1977. At the latter date, unless the suspension is further extended, the item will revert to its permanent statutory form.

The present specific duty of 1½ cents has been in effect since 1959. The tariff structure applicable to dry onions in various periods is set forth below:

⁽¹⁾ This item was not specifically referred to the Board.

⁽²⁾ It is not clear, in fact, to what extent onions may be marketed as "dry shallots."

Table 6: Onions, Dry: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1930-1947 ^(a)	Free	30 p.c.	30 p.c. not less than $\frac{3}{4}$ ct.
1948-1950 (May 31)	Free	1 ct. (40 weeks) or 10 p.c.	30 p.c. not less than $\frac{3}{4}$ ct.
1950 (June 1) - 1959 (April 9)	Free	1 ct. (40 weeks) or 10 p.c.	1 ct. (40 weeks) or 10 p.c.
1959 (April 10) - 1973 (Feb. 19)	Free	$1\frac{1}{2}$ cts. (44 weeks) or 10 p.c.	$1\frac{1}{2}$ cts. (44 weeks) or 10 p.c.
1973 (Feb. 20) - 1974 (June 30)	Free	$1\frac{1}{2}$ cts. (44 weeks) or Free	$1\frac{1}{2}$ cts. (44 weeks) or Free
1974 (July 1) - 1974 (Nov. 18)	Free	$1\frac{1}{2}$ cts. (44 weeks) or 10 p.c.	$1\frac{1}{2}$ cts. (44 weeks) or 10 p.c.
1974 (Nov. 19) - 1977 (June 30)	Free	$1\frac{1}{2}$ cts. (44 weeks) or Free	$1\frac{1}{2}$ cts. (44 weeks) or Free

(a) The General Tariff applied to imports from the United States until Dec. 31, 1935.

Source: Canadian Customs Tariff.

As will be noted, a seasonal specific duty (1 cent per pound) was first introduced in 1948 with the maximum period of application being 40 weeks. In 1959, this specific duty was raised to $1\frac{1}{2}$ cents and the seasonal period extended to 44 weeks. Since 1950, the M.F.N. and Gen. schedule have been identical, with duty-free entry applying to B.P. imports for the period reviewed. Pursuant to temporary tariff amendments, the off-season rate of 10 p.c. has been suspended since 1973, except for a few months during 1974.

Under the U.S. tariff, dry onions entered from Canada are dutiable (under U.S. item 136.91) at 1.75 cents per pound and this rate applies throughout the year.

Appendix Table 16 sets forth the periods, in the three tariff regions, in which the seasonal specific duty has been applied since 1966. In all tariff regions, the specific duty has been in effect for the bulk of the 44 weeks (308 days) permitted, one exception being in the central region in 1967.

In 1975, the current ad valorem equivalent of the $1\frac{1}{2}$ cents specific duty was about 16 p.c. given an average f.o.b. import price for dry onions of somewhat over 9 cents per pound (see Appendix Table 17). Import prices have risen substantially in the 1970s and, accordingly, the degree of protection conferred by the specific duty has fallen. For example, the ad valorem equivalent rate averaged 32.6 per cent during the 1966-70 period compared with 23.1 per cent for the 1971-75 period.

The Canadian Horticultural Council requested an increase in the specific duty on dry onions under tariff item 8717-1, from $1\frac{1}{2}$ cents to $1\frac{3}{4}$ cents per pound. It was advocated that this latter rate be imposed on imports from B.P. countries whereas B.P. imports are now entered free of duty. The Council also requested that the present seasonal period of application (44 weeks) be extended to 52 weeks, i.e., that specific duties, where necessary, could be applied on dry onions throughout the year.⁽¹⁾ No packaging duties now apply to dry onions. The Council proposed, however, that this vegetable be subject to an additional pre-pack duty (10 p.c. under B.P., M.F.N. and Gen. rates) when entered in consumer-sized packages of 10 pounds or less.

The proposals of the Council would, of course, entail higher consumer prices based on the request for a new packaging duty on pre-packs of 10 pounds or less and for a slightly higher specific duty. If adopted, the request for a duty on imports from B.P. countries would also presumably lead to higher consumer prices.

The Canadian Food Processors Association proposed the introduction of a new tariff item to cover Sweet-Spanish-type onions when imported for processing in Canada ("Onions - Spanish type - for manufacture"). A rate of 10 p.c. was suggested for this requested new item, together with an application maximum of 12 weeks, with free entry to pertain at other times.

With respect to its request that a B.P. specific duty, at $1\frac{3}{4}$ cents per pound, be introduced, the Council made the following contention:

Australia and New Zealand have made inroads into our markets with imports in the month of March which have seriously disrupted the Canadian onion business in western Canada since they come in entirely Free of duty and they effectively remove about one month from our marketing period ... with relatively modest ocean freight rates into the Vancouver market.⁽²⁾

(1) In its original brief, the Horticultural Council did not seek any change to the existing duty period of 44 weeks. In a subsequent amendment dated May 22, 1974, however, the Council requested a 52-week dutiable period. In amending its position, the Council contended that the effective storage period has been extended in recent years and, also, that in eastern Canada early production is harvested at the end of June or in early July.

(2) Transcript, Volume 10, p. 1427.

Duty-free imports of dry onions, from those exporting countries accorded B.P. status, constituted only 2.0 per cent of total imports for the period 1971-75. Viewed another way, such duty-free B.P. imports comprised only 0.7 per cent of annual domestic consumption during 1971-75. While fresh market consumption increased, imports of dry onions from B.P. countries, moreover, have declined from 2.1 million pounds in 1966-70 to 1.6 million pounds in 1971-75. The broader picture thus certainly is one in which there is little evidence of any significant competition from growers enjoying preferential access to Canadian markets by reason of the duty-free B.P. rate.

Imports from B.P. countries, if concentrated in a short period, and in a particular regional market, might comprise a significant market factor, as suggested by the Council's position. While the Council mentions Australia as a competitive factor, in fact, for the 10-year period 1966-75, Australia has exported dry onions to Canada in only two years, i.e., in 1967 (29,500 pounds) and in 1973 (554,020 pounds). Competition would essentially be from New Zealand which accounted for 92 per cent of total B.P. imports in 1971-75. As pointed out, a Free rate of duty is bound under the Canada-New Zealand Trade Agreement. Unless this agreement is renegotiated, the introduction of any B.P. duty on dry onions, as requested by the Council, would exclude New Zealand, the only B.P. exporter of any significance.

While The Canadian Horticultural Council sought to have the seasonal duty on dry onions applied for 52 weeks, this might not be justified given the relatively small volume of domestic marketings occurring in June or July. The basic position of the Council was that early domestic production was available in the first weeks of July while, at the same time, shipments from storage, from the previous crop year, were available in volume up to, and including, June. Marketings in June and July together account for only some 4 per cent of fresh market shipments as based on 1971-74 data. A duty imposed in these months would be of only small benefit to growers, whereas the cost to domestic consumers would be significant considering that imports are usually at peak levels in June and July. On the other hand, some extension of the present duty period of 44 weeks may be justifiable given better storage methods and evidence of increased domestic sales from storage in the month of June.

With reference to the proposal of the Canadian Food Processors Association that a separate tariff item be provided for dry onions of the Spanish type for processing, there are certain considerations that merit implementation of this request. Based on confidential information, this type of onion is evidently imported in substantial and increasingly large quantities for use in onion rings.⁽¹⁾ While Spanish-type onions are grown in Canada, they are not stored⁽²⁾ and consequently are usually only available from domestic production in August, September, and October. On the other hand, processing needs are year round and, while some share of

(1) Confidential information received indicates significantly increased imports volumes in 1975 and 1976.

(2) The variety of Spanish onion cultivated in Idaho may be stored, but domestic varieties are said not to be stored for more than two or three weeks.

processing demand is met from domestic production, the bulk of demand is supplied through imports, chiefly from Texas. At present, Spanish-type onions are classified under tariff item 8717-1 which covers all types of dry onions. As the predominant yellowseed onion is storable, tariff item 8717-1 authorizes a specific duty for the bulk of the year (44 weeks) to protect domestic marketings made from storage. Whereas the Spanish-type onion is not stored and therefore not available for most of the 44 weeks, a duty is, nonetheless, imposed under existing tariff classifications. This affects particularly the manufacture of onion rings, which uses exclusively the sweeter Spanish onions. An obvious objection to including Spanish onions for the fresh market under this new item would be that this would provide preferential entry to this type of onion, because of the shorter dutiable period, relative to yellowseed onions, which can be substitutes.

The separate classification requested for Spanish-type onions for processing on the other hand, does pose certain problems. Generally, the Customs Tariff dealing with fresh vegetables and fruits is already quite detailed, providing for a large number of classifications, mainly according to genus and/or species, not types. It is also pointed out that, in lieu of separate treatment in the Customs Tariff itself, a duty remission program is now available to Canadian processors providing relief through the remission of import duties paid on imported produce where such produce is unavailable domestically. Moreover, when a Canadian processor exports the finished product to the United States, duty drawbacks may be obtained for import duties paid on the raw product. It may further be noted that, during the public sittings, The Canadian Horticultural Council contested the position of the Canadian Food Processors Association that onions of the Spanish type were essential in processing onion rings and questioned if Canadian processors had, in fact, made sufficient attempts to secure domestic sources of supply.⁽¹⁾

Certain revisions recommended for tariff item 8400-1 ("onion sets and shallots, in their natural state") occasion a minor nomenclature change to tariff item 8717-1. Shallots, green or dry, are more similar to green onions and dry onions than to the onion sets with which they are now classified under tariff item 8400-1. This anomaly can be rectified by appropriate changes in nomenclature, placing green shallots with green onions and dry shallots with dry onions under tariff item 8717-1.

CONCLUSIONS

Most of Canada's dry onion crop is sold for domestic fresh market consumption, although Canada currently exports about 14 per cent of production. Only a very small volume of this crop, about 1 per cent, is used in food processing. Canadian production has declined since the early 1960s, this trend probably being associated with a fall-off in exports to the United Kingdom, Canada's major export market. While Canada is an exporter of this vegetable, fresh imports nonetheless exceed exports; domestic fresh markets rely largely on imported supplies curing the late spring and summer months when Canadian storage stocks are largely exhausted.

(1) Transcript, Volume 10, pp. 1436-1440.

Although The Canadian Horticultural Council requested an increase in the existing duty obtaining under tariff item 8717-1, the Board does not consider a tariff increase to be justified. Given the present level of tariff protection, domestic growers appear to be sufficiently competitive in their main marketing period, meeting the bulk of fresh market demand in the nine months from August to April, inclusive. Moreover, while imports captured a rising share of the domestic fresh market during the late 1960s, a comparison of 1966-70 to 1971-74 indicates that domestic growers have, in more recent years, been able to maintain, and perhaps slightly improve, their market position. It is estimated, for example, that domestic shipments comprised 66.3 per cent of fresh market sales during the period 1966-70, this market share rising slightly to 67.1 per cent for 1971-74. This improved competitive position results from expanded domestic marketings, and the consequent displacement of imports toward the end of the normal storage season. There is no indication that dry onion imports, mainly from the United States, compete in the Canadian market on the basis of lower price. In fact, a comparison of wholesale prices shows that imported dry onions normally sell at a higher price compared to the domestic product; per pound farm-gate prices, also, have been higher in the United States in recent years.

The present specific duty of $1\frac{1}{2}$ cents yields a level of protection which even in 1975 amounted to 16 per cent and which for 1971-75 averaged 23.1 per cent on an ad valorem basis. The relatively high level of protection pertaining to dry onions compared to other major vegetable crops grown domestically is a further factor considered by the Board, in not recommending a tariff increase.

The Board, on the other hand, did not conclude it was desirable to recommend any reduction in the present specific duty provided for under tariff item 8717-1. While domestic producers of this vegetable have been able to better their market share vis-à-vis imports in certain months, imports of dry onions, nonetheless, are of significant volume in that period which constitutes the prime harvesting-marketing season.

While The Canadian Horticultural Council requested that the $1\frac{3}{4}$ cents specific duty be imposed on dry onions entered from B.P. countries, the Board, bearing in mind their small and declining volume, recommends no change be made from the free entry now accorded such imports.

It is further recommended that a separate tariff classification be established for Spanish-type onions when entered for processing. This type of onion is imported in substantial and increasing volumes for a particular use, the processing of deep fried onion rings. The Board recommends a specific duty of $1\frac{1}{2}$ cents per pound for this new tariff item with a maximum period of application of 12 weeks. While the duty thus pertaining would not differ from that applicable to other dry onion types, the seasonal period of application would be much shorter. As most dry onions are a storage crop, the specific duty under present tariff item 8717-1 is authorized for most of the crop year (44 weeks). However, Spanish-type onions are not stored, and are evidently not domestically available during most of this 44-week period. The Board is of the opinion that its recommendation

would offer sufficient protection to those growers in Canada producing Spanish-type onions, or seeking to expand such protection while at the same time permitting duty-free entry to processors when this type of onion is not available domestically.

While The Canadian Horticultural Council requested that the duty period authorized for dry onions be extended to enable duty application for 52 weeks, the Board did not view this extension to be justified. However, in recognition of improved storage techniques, and somewhat longer storage periods in recent years, the Board felt that a 2-week extension was warranted and therefore recommends that the dutiable period under tariff item 8717-1 be changed from 44 to 46 weeks.

There is at present no provision for additional packaging duties respecting dry onions entered under tariff item 8717-1. The Canadian Horticultural Council requests such a packaging duty for dry onions if entered in packs of 10 pounds or less. A more general discussion of packaging duties is presented elsewhere in this Reference. The Board recommends that tariff item 8717-1 provide for packaging duties, where dry onions are imported in consumer pre-packs of 5 pounds or less, such packaging rates to be those which currently exist, i.e., 5 p.c. M.F.N. and 10 p.c. Gen.

Because of price increases, the ad valorem level of protection afforded by the existing specific duty of $1\frac{1}{2}$ cents has fallen markedly since 1966, averaging about 33 per cent in 1966-70 as compared with 23 per cent in 1971-75 and with 16 per cent in 1975. To stabilize the recommended specific duty against further erosion from inflationary price trends, the Board recommends that the specific duty be subject to an ad valorem minimum rate of 15 per cent. This minimum would apply to both existing tariff item 8717-1 and to the new item proposed for Spanish-type onions when imported for processing. The Board recommends that the M.F.N. and Gen. schedules be the same inasmuch as these tariffs are presently identical under present tariff item 8717-1.

Pursuant to amendments proposed for certain other tariff items respecting onions, the Board recommends that the nomenclature of tariff item 8717-1 be broadened to include the term "shallots." This recommendation would, of course, apply only to dry shallots. The Board has no information to indicate that such shallots are imported into Canada in significant quantities.

RECOMMENDATIONS

The Board recommends that the existing tariff schedule in effect respecting onions under tariff item 8717-1 be deleted and that the following schedule be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Onions, Spanish-type, for processing .. per pound	Free	1½ cts. but not less than 15 p.c., or Free	1½ cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 12 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Onions, n.o.p., and dry shallots per pound	Free	1½ cts. but not less than 15 p.c., or Free	1½ cts. but not less than 15 p.c., or Free
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In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 46 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

Appendix Table 1

Onions, Dry: Acreage and Number of Farms, by
Province and Region, 1961 and 1971

	1961		1971		No. of Farms Reporting
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	
Atlantic Region	41	0.5	37	0.4	82
Nfld.	1	*	*	*	1
P.E.I.	1	*	8	0.1	9
N.S.	27	0.3	17	0.2	38
N.B.	12	0.2	12	0.1	34
Central Region	6,123	78.7	7,448	82.9	1,549
Que.	1,789	23.0	2,715	30.2	664
Ont.	4,334	55.7	4,733	52.7	885
Western Region	1,619	20.8	1,503	16.7	449
Man.	928	11.9	590	6.6	153
Sask.	32	0.4	36	0.4	50
Alta.	189	2.4	226	2.5	81
B.C.	470	6.0	651	7.2	165
Canada ^(a)	7,784	100.0	8,988	100.0	2,080

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Onions, Dry: Supply and Disposition Ratios, Canada, Crop Years,
1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
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- per cent -

Per Cent of Domestic Production:

Sold for Processing
Sold to Domestic Fresh Market
Exported

1.9	1.9	1.3	1.3	1.1	1.5	1.3
73.7	76.4	82.7	81.9	88.2	86.2	84.8
24.3	21.7	16.0	16.8	10.7	12.3	13.9

Total Imports as Per Cent:

of Total Supply Available
of Total Domestic Disappearance

22.1	28.2	24.4	34.0	27.7	35.9	30.4
27.3	33.4	27.8	38.3	30.1	38.9	33.7

Fresh Market Imports as Per Cent:

of Fresh Market Availability
of Fresh Exports
of Fresh Market Consumption

22.2	28.4	23.9	33.5	26.7	35.1	29.7
114.8	179.1	193.4	295.6	337.0	435.1	299.2
27.5	33.7	27.3	37.7	29.0	38.2	32.9

Per Cent of Fresh Market Consumption:

From Domestic Production

72.5	66.3	72.7	62.3	71.0	61.8	67.1
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Per Cent of Total Domestic Disappearance:

Consumed in Fresh Form

97.7	98.1	97.8	97.5	97.3	97.1	97.4
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Net Imports^(a) as % of Total Domestic
Disappearance

3.9	14.9	14.0	25.8	21.7	30.4	22.9
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(a) Total imports minus total exports.

Source: Table 2.

Appendix Table 2

Appendix Table 3

Onions, Dry: Estimated Monthly Distribution of Fresh Shipments^(a) Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	Average 1971-74	1971-72	1972-73	1973-74	1974-75
- thousand pounds -						
July	3,429	3,389	5,907	2,050	2,468	3,131
Aug.	14,807	11,494	13,189	9,157	13,925	9,705
Sept.	20,730	20,366	21,676	20,911	21,504	17,374
Oct.	22,912	24,090	22,421	21,321	26,792	25,826
Nov.	19,950	20,386	18,235	16,128	27,145	20,035
Dec.	16,366	16,004	18,063	12,301	16,745	16,905
Jan.	15,742	16,903	15,058	17,221	16,393	18,939
Feb.	12,937	13,894	15,986	12,984	15,335	11,270
Mar.	12,469	13,367	18,406	13,804	9,518	11,739
Apr.	9,819	11,605	14,945	7,517	11,281	12,678
May	4,832	7,860	12,576	2,324	10,752	5,791
June	1,870	3,420	5,185	957	4,407	3,131
Total	155,862	162,778	181,647	136,675	176,264	156,524

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Onions, Dry: Estimated Monthly Distribution of Fresh Market Consumption, Crop Years, 1961-65 to 1971-74

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
- per cent -			- thousand pounds -		per cent	
July	53.7	76.8	3,389	12,068	15,457	78.1
Aug.	10.6	22.5	11,494	6,290	17,784	35.4
Sept.	11.0	15.0	20,366	3,948	24,314	16.2
Oct.	10.5	13.8	24,090	4,060	28,150	14.4
Nov.	12.2	14.7	20,386	4,755	25,141	18.9
Dec.	13.7	17.6	16,004	4,499	20,503	21.9
Jan.	15.0	22.1	16,903	5,059	21,962	23.0
Feb.	16.7	23.8	13,894	4,140	18,034	23.0
Mar.	26.9	29.5	13,367	4,587	17,954	25.5
Apr.	42.1	43.2	11,605	5,003	16,608	30.1
May	74.4	73.3	7,860	11,197	19,057	58.8
June	95.5	88.9	3,420	14,314	17,734	80.7
Total	27.5	33.7	162,862	79,920	242,698	32.9

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 5

Onions, Dry^(a): Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Spain</u>	<u>New Zealand</u>	<u>Chile</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -							
1966	53,784	3,813	607	3,015	530	1,403	63,153
1967	71,004	5,977	1,413	4,756	416	557	84,124
1968	68,955	6,012	1,214	5,131	790	1,372	83,474
1969	69,312	5,039	919	4,276	642	271	80,458
1970	74,691	3,350	4,700	5,486	315	744	89,284
Average 1966-70	67,549	4,838	1,771	4,533	539	869	80,099
1971	65,383	3,452	474	4,398	185	378	74,271
1972	65,543	2,269	65	253	397	603	69,130
1973	82,572	684	5,765	148	1,332	1,555	92,056
1974	82,651	-	985	1,410	405	512	85,962
1975	92,848	-	190	1,291	982	1,667	96,978
Average 1971-75	77,799	1,281	1,496	1,500	660	943	83,679

(a) Includes a minor volume of onion sets.

Source: Statistics Canada.

Appendix Table 6

Onions, Dry^(a): Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	5,363	3,417	4,270	8,775	5,945	6,377
Nfld.	1,169	73	571	1,136	1,067	985
P.E.I.	270	86	156	270	144	189
N.S.	1,819	1,056	1,237	3,381	2,249	2,650
N.B.	2,106	2,201	2,305	3,988	2,485	2,554
Central Region	44,187	31,963	32,956	46,522	38,566	41,072
Que.	20,493	14,493	14,300	19,988	15,588	14,996
Ont.	23,694	17,471	18,655	26,534	22,979	26,076
Western Region	30,549	38,891	31,905	36,758	41,451	49,529
Man.	5,377	5,843	5,622	6,294	6,391	6,444
Sask.	2,431	2,770	2,966	3,589	5,202	4,484
Alta.	6,476	7,441	7,404	7,416	8,293	9,888
B.C.	16,265	22,838	15,913	19,459	21,566	28,713
Canada	80,099	74,271	69,130	92,056	85,962	96,978

(a) Includes a minor volume of onion sets.

Source: Statistics Canada.

Appendix Table 7

Onions, Dry^(a): Imports by Month, Crop Years, 1966-70 to 1974-75

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-74</u>	<u>%</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
- thousand pounds -								
July	13,987	17.3	13,536	16.0	11,967	12,183	15,213	14,782
Aug.	5,459	6.8	8,307	9.8	7,525	7,100	8,863	9,740
Sept.	3,543	4.4	5,256	6.2	8,338	3,889	4,002	4,795
Oct.	3,313	4.1	3,983	4.7	3,458	3,525	3,819	5,129
Nov.	3,692	4.6	4,578	5.4	3,389	4,309	4,018	6,597
Dec.	2,532	3.1	4,658	5.5	2,720	3,639	4,397	7,877
Jan.	4,513	5.6	4,440	5.3	3,007	5,328	3,913	5,510
Feb.	3,358	4.2	5,646	6.7	3,266	3,635	4,719	10,965
Mar.	5,499	6.8	4,537	5.4	3,797	2,093	4,422	7,836
Apr.	6,868	8.5	5,273	6.2	4,790	5,926	4,836	5,540
May	12,031	14.9	9,199	10.9	7,454	12,596	7,417	9,328
June	15,830	19.6	15,135	17.9	11,885	22,066	11,685	14,904
Total	80,623	100.0	84,548	100.0	71,597	86,288	77,305	103,001

(a) Includes a minor volume of onion sets.

Source: Statistics Canada.

Appendix Table 8

Onions, Dry: Percentage Distribution of Fresh Market Imports from United States, by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Oregon</u>	<u>Texas</u>	<u>Washington</u>	<u>Others</u>	<u>Total</u>
- per cent -						
<u>1972</u>						
Maritime Region	53.3	2.4	12.1	-	32.2	100.0
Central Region	24.9	24.8	15.6	3.7	31.0	100.0
Western Region	28.5	17.9	9.1	36.2	8.3	100.0
Canada	27.7	20.5	12.0	20.9	18.9	100.0
<u>1973</u>						
Maritime Region	22.6	1.6	27.0	-	48.8	100.0
Central Region	24.8	17.3	29.1	4.9	23.9	100.0
Western Region	34.4	9.5	17.2	32.8	6.1	100.0
Canada	29.0	13.3	23.7	17.3	16.7	100.0
<u>1974</u>						
Maritime Region	26.6	1.4	31.9	-	40.1	100.0
Central Region	23.7	24.8	13.6	3.1	34.8	100.0
Western Region	24.4	15.5	14.5	37.1	8.5	100.0
Canada	24.2	19.1	14.7	20.9	21.1	100.0

Source: Agriculture Canada.

Appendix Table 9

Onions, Dry^(a): Exports by Country of Destination, 1966-1975

Year	United Kingdom	Western Europe	Commonwealth Caribbean	Guyana	United States	Others	Total
	- thousand pounds				-		
1966	30,858	1,064	10,485	3,312	497	92	46,308
1967	15,142	2,432	10,415	1,831	238	100	30,158
1968	15,731	2,841	11,834	1,979	1,312	1,567	35,264
1969	40,224	831	13,911	2,818	1,561	1,499	60,844
1970	29,443	524	11,344	2,090	429	445	44,276
Average 1966-70	26,280	1,538	11,598	2,406	807	741	43,370
1971	19,087	80	11,285	1,517	1,271	1,522	34,762
1972	19,725	988	10,538	770	935	565	33,520
1973	5,174	147	9,006	120	13,541	226	28,213
1974	5,144	480	7,373	873	3,418	149	17,437
1975	15,894	1,471	7,989	200	3,087	109	28,750
Average 1971-75	13,005	633	9,238	696	4,450	514	28,536

(a) Includes a minor volume of onion sets and shallots.

Source: Statistics Canada.

Appendix Table 10

Onions, Dry^(a): Exports by Month, Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	Average 1971-74	1971-72	1972-73	1973-74	1974-75
	- thousand pounds				-	
July	293	267	315	455	269	27
Aug.	523	993	1,000	1,283	1,281	408
Sept.	1,572	1,233	1,857	1,020	1,139	915
Oct.	2,397	1,410	1,151	1,491	1,550	1,446
Nov.	3,578	1,677	1,313	1,249	2,029	2,116
Dec.	6,532	2,192	2,997	2,670	2,387	716
Jan.	6,178	2,573	1,821	2,701	2,896	2,877
Feb.	5,951	2,878	2,782	3,596	2,154	2,979
Mar.	6,632	5,099	4,251	7,720	2,038	6,388
Apr.	6,091	4,191	5,151	5,129	2,821	3,661
May	3,263	2,484	7,836	268	1,463	370
June	989	1,044	3,512	143	435	88
Total	43,996	26,041	33,985	27,724	20,464	21,992

(a) Includes a minor volume of onion sets and shallots.

Source: Statistics Canada.

Appendix Table 11

Onions, Dry^(a): Exports by Province, 1972-1975

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -			.
Atlantic Region ^(b)	5,073	1,916	2,248	9,613
Nfld.	-	-	*	3
N.S.	3,840	1,302	2,247	9,611
N.B.	1,232	613	-	-
Central Region	28,324	26,179	15,050	19,065
Que. ^(b)	18,703	6,165	2,604	2,620
Ont.	9,621	20,014	12,447	16,445
Western Region	123	118	138	72
Man.	-	14	53	-
B.C.	123	104	86	72
Canada	33,520	28,213	17,437	28,750

^(a) Includes a minor volume of onion sets and shallots.

^(b) Export data is recorded by Port of Shipment. The exports indicated largely reflect trans-shipments of produce by Ontario growers.

Source: Statistics Canada.

Onions, Dry: Monthly Storage Holdings, on the 1st of the Month, 1971-72 to 1974-75

	Maritime Region	Quebec	Ontario	Central Region	Prairies	British Columbia	Western Region	Canada
					- thousand pounds -			
1971-72								
Nov.	421	34,413	68,072	102,485	2,259	9,035	11,294	114,200
Dec.	332	25,805	68,416	94,221	2,052	7,205	9,257	103,810
Jan.	411	21,708	60,202	81,910	1,622	6,039	7,661	89,982
Feb.	326	16,190	53,857	70,047	1,861	3,730	5,591	75,964
Mar.	301	8,606	42,227	50,833	1,356	2,321	3,677	54,811
Apr.	249	4,353	27,051	31,404	918	613	1,531	33,184
May	317	2,411	13,163	15,574	560	708	1,268	17,159
1972-73								
Nov.	442	13,744	53,821	67,565	4,433	9,461	13,894	81,901
Dec.	391	11,144	53,893	65,037	3,703	7,545	11,248	76,676
Jan.	335	8,745	45,203	53,948	2,084	5,543	7,627	61,910
Feb.	418	5,822	33,828	39,650	1,852	3,034	4,886	44,954
Mar.	330	3,626	20,516	24,142	1,014	1,668	2,682	27,154
Apr.	299	963	7,394	8,357	481	564	1,045	9,701
May	265	648	1,709	2,357	299	532	831	3,453
1973-74								
Nov.	486	15,381	76,244	91,625	4,559	12,782	17,341	109,452
Dec.	467	13,134	64,560	77,694	4,438	10,020	14,458	92,619
Jan.	337	12,389	53,027	65,416	3,240	7,162	10,402	76,155
Feb.	295	11,188	36,366	47,554	2,309	4,252	6,561	54,410
Mar.	408	7,913	30,322	38,235	1,674	3,913	5,587	44,230
Apr.	277	5,161	22,633	27,794	715	1,896	2,611	30,682
May	346	2,237	14,626	16,863	1,013	858	1,871	19,080

Onions, Dry: Monthly Storage Holdings, on the 1st of the Month, 1971-72 to 1974-75

	<u>Maritime Region</u>	<u>Quebec</u>	<u>Ontario</u>	<u>Central Region</u>	<u>Prairies</u>	<u>British Columbia</u>	<u>Western Region</u>	<u>Canada</u>
				-	thousand pounds	-		
<u>1974-75</u>								
Nov.	521	14,148	82,895	97,043	1,755	10,454	12,209	109,773
Dec.	418	12,208	79,942	92,150	2,531	6,722	9,253	101,821
Jan.	492	8,738	66,490	75,228	2,265	5,255	7,520	83,240
Feb.	315	5,781	52,825	58,606	2,071	2,789	4,860	63,781
Mar.	353	2,948	39,305	42,253	1,324	1,629	2,953	45,559
Apr.	378	1,852	22,220	24,072	672	1,066	1,738	26,188
May	453	1,060	8,151	9,211	817	479	1,296	10,960
<u>Average 1971-74</u>								
Nov.	468	19,422	70,258	89,680	3,252	10,433	13,685	103,833
Dec.	402	15,573	66,703	82,276	3,181	7,873	11,054	93,732
Jan.	394	12,895	56,231	69,126	2,303	6,000	8,303	77,823
Feb.	339	9,745	44,219	53,964	2,023	3,451	5,474	59,777
Mar.	348	5,773	33,093	38,866	1,342	2,383	3,725	42,939
Apr.	301	3,082	19,825	22,907	697	1,035	1,732	24,940
May	345	1,589	9,412	11,001	672	644	1,316	12,662

Source: Agriculture Canada.

Appendix Table 13a

Onions, Dry: Weekly Wholesale to Retail Prices at Halifax and Montreal, 1974

Week Ending	Halifax			Montreal		
	Spanish		Yellow Tex. -cello, 12/3 lb. ctn.-	Yellow		Red Cal. 40 lb. ctn. Que. 50 lb. bag
	Cal.	N.S. -50 lb. bag-		Ida., Ore. - 50 lb. bag -	Que.(a) cello, 24/2 lb.	
Jan.	4	18.0	16.1	14.3	11.7	8.8
	11	18.0	16.1	14.3	11.7	8.8
	18	18.0	16.1	15.8	11.7	8.8
	25	20.0	16.1	20.0	11.7	8.8
Feb.	1	25.4	16.1	21.5	12.8	10.0
	8	27.2	18.9	21.5	13.5	11.0
	15	27.2	20.3	21.3	13.8	11.3
	22	26.0	20.3	19.0	13.8	11.3
Mar.	1	22.4	20.3	18.5	13.5	10.5
	8	20.5	20.3	18.3	12.8	10.3
	15	19.0	17.6	16.5	11.7	9.0
	22	17.2	17.2	16.0	10.7	7.8
Apr.	29	15.0	15.6	12.3	9.1	7.7
	5	13.4	14.7	10.3	7.7	7.6
	12	16.0	14.7	11.3	7.6	7.6
	19	17.5	14.7	10.5	7.6	7.6
May	26	16.5	13.5	10.5	7.6	7.6
	3	16.5	13.5	10.8	7.6	7.6
	10	14.0	13.5	10.8	8.1	8.1
	17	14.0	13.5	10.8	8.6	8.6
June	24	15.0	13.9	12.3	9.1	9.1
	31	14.6	16.7	12.8	9.6	9.6
	7	14.6	16.7	12.8	9.6	9.6
	14	14.6	16.7	11.3	9.6	9.6
	21	14.6	15.4	10.8	18.5	18.5
	28	14.0	15.4	10.8	18.5	18.5
- cents per pound -						
				14.3	11.7	8.8
				14.3	11.7	8.8
				15.8	11.7	8.8
				20.0	11.7	8.8
				21.5	12.8	10.0
				21.5	13.5	11.0
				21.3	13.8	11.3
				19.0	13.8	11.3
				18.5	13.5	10.5
				18.3	12.8	10.3
				16.5	11.7	9.0
				16.0	10.7	7.8
				12.3	9.1	7.7
				10.3	7.7	7.6
				11.3	7.6	7.6
				10.5	7.6	7.6
				10.5	7.6	7.6
				10.8	7.6	7.6
				10.8	8.1	8.1
				10.8	8.6	8.6
					9.1	9.1
				12.3	9.6	9.6
				12.8	9.6	9.6
				11.3	9.6	9.6
				10.8	9.6	9.6
				10.8	18.5	18.5

Appendix Table 13b

Onions, Dry: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto				Winnipeg				Vancouver			
	Spanish		Yellow		Yellow				Yellow			
	Ida.(a)	Ont.	Ore.(a)	Ont.	Ida.(b)	Tex.(c)	Man.(d)	Man.	Wash.	Cal.	B.C.	
	- 50 lb. bag -		bag -		- 50 lb. bag -		Mesh, 15/3 lb.		- 50 lb. bag -			
- cents per pound -												
Jan.	4	13.3	13.3	8.8	10.9	14.8	9.8	13.4	13.5		10.8	
	11	13.8	13.8	8.5	10.9	14.5	9.8	12.8	13.7		10.9	
	18	17.0	17.0	7.9	9.7	15.0	10.3	13.1	16.5		10.9	
	25	20.5	20.5	9.0	9.9	18.0	11.7	14.2	17.2		12.2	
Feb.	1	22.5	22.5	10.3	10.8	22.3	12.4	16.0	19.0		13.1	
	8	22.5	22.5	10.5	12.0	22.1	12.4	16.0	24.5		14.0	
	15	19.5	19.5	10.5	12.0	21.5	12.1	16.4	24.5		15.1	
	22	18.3	18.3	9.8	12.0	20.8	12.5	16.4	24.5		16.1	
Mar.	1	18.3	18.3	9.3	11.5	20.8	12.0	15.9	24.0		16.1	
	8	14.5	14.5	9.3	10.6	19.5	11.2	16.0	24.1		14.1	
	15	12.5	12.5	8.3	9.7	16.3	10.0	13.4	24.1		13.8	
	22	11.8	11.8	8.3	9.7	13.8	9.0	12.5	20.7		13.3	
Apr.	29	10.8	10.8	7.8	9.9	13.8	7.5	12.1	19.2		13.0	
	5	10.8	10.8	7.8	9.7	13.3	7.8	11.6	19.0		12.5	
	12	10.3	10.3	7.8	9.7	11.3	7.8	11.7	19.0		12.0	
	19	9.8	9.8	7.3	10.9	10.5	7.5	12.0	19.0		12.0	
May	26	9.8	9.8	6.8	10.9	10.5	7.7	12.0	20.0		10.8	
	3	10.3	10.3	6.8	10.9	10.5	7.7	12.0	20.0		10.8	
	10	10.3	10.3	6.3	8.5		7.7	12.0		11.5		
	17	10.3	10.3	6.8	9.9		11.0	13.1(e)		11.3		
June	24	10.3	10.3	6.8	9.9		11.0	13.3(e)		12.3		
	31	10.3	10.3	6.3	7.8		11.0	13.3(e)		12.3		
	7	10.3	10.3	7.3	9.6		9.5			12.3		
	14	10.3	10.3	8.5	10.9		9.3			11.5		
	21	10.3	10.3	8.5	10.9		9.3			11.4		
	28			8.5	10.9		9.0			10.6		

Appendix Table 13b (concl.)

Onions, Dry: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974										
Week Ending	Toronto			Winnipeg			Vancouver			
	Spanish	Yellow		Ida. (b) - 50 lb. bag -	Yellow		Wash. Cal. - 50 lb. bag -	B.C.		
	Ida. (a) Ont.	Ore. (a) Ont.	Tex. (c) Man. (d)		Man.					
	- 50 lb. bag -	cello, 12/2 lb.	Mesh, 15/3 lb.							
- cents per pound -										
July	5	11.0	10.8	8.5	11.5	9.3	11.8	11.8		
	12	11.8	10.8	8.8	12.0	9.3	11.5	11.5		
	19	11.8	10.8	8.8	12.0	9.8	11.2	11.2		
Aug.	26	11.8	10.8		13.0	11.0	11.8	11.8		
	2	11.8	10.8		13.0	10.5	11.8	11.8		
	9	11.8			14.1	10.8	11.5	11.5		
	16	11.8	10.8		14.1	11.0	11.0	11.0		
	23	11.5			14.1	11.2	11.5	11.5		
	30			10.0	14.6	11.3	12.8	12.8		9.3
Sept.	6		11.3	8.3	13.9	11.3	12.0	11.5		11.5
	13		11.3	7.3	11.2	11.7	12.8	12.8		9.0
	20		11.3	7.3	11.7	11.2	12.8	12.8		9.0
Oct.	27		11.0	7.0	11.5	11.2	12.5	12.5		10.0
	4	11.8	10.8	7.3	10.9	10.0	12.8	12.8		10.0
	11	11.8	10.8	6.3	9.9	9.8	13.3	13.3		9.3
	18	11.8	10.8	6.3	9.9	11.5	12.8	12.8		9.3
	25	10.8	10.3	6.3	9.2	10.8	12.5	12.5		10.0
	1	10.8	10.3	6.3	9.2	9.5	12.5	12.5		10.0
Nov.	8	10.8	10.3	6.3	9.2	11.8	12.3	12.3		9.8
	15	10.8	10.8	7.3	9.9	9.3	12.0	12.0		9.5
	22	10.8	9.5	6.5	9.9	9.3	12.3	12.3		9.5
Dec.	29	10.0	8.3	6.3	9.9	8.1	12.3	12.3		9.5
	6	10.0	8.3	6.3	9.9	7.9	12.0	12.0		8.7
	13	10.3	8.3	6.3	9.9	8.4	11.8	11.8		9.0
	20	10.3	8.3	6.3	9.9	7.8	11.6	11.6		9.0
	27	10.3	8.3	6.0	9.4	7.8	11.5	11.5		9.0
				6.0	9.4	7.8	11.2	11.2		9.0

(a) California quotations July 5 to Aug. 23.

(b) Oregon quotations April 26 and Aug. 23 to Oct. 11.

(c) California quotations Aug. 9 to Sept. 6.

(d) Ontario quotations May 17 to June 7.

(e) Ontario quotations May 17 to May 31.

Appendix Table 14a

Imported United States Dry Onions:				Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Toronto; Selected Data by Month, 1972-1974					
Month of Shipment	1972			1973			1974		
	Source	Cost f.o.b.	Cost of Freight	Total		Cost f.o.b.	Cost of Freight		
				Landed Cost	Duty Paid				
January	Texas	6.7	2.3	1.5	10.5	-	-	-	-
March	-	-	-	-	-	-	-	5.3	2.9
April	-	-	-	-	-	-	-	6.1	2.6
	-	-	-	-	-	-	-	5.5	2.8
May	Texas	5.7	2.8	0.6	9.1	-	-	4.0	2.8
	La.	6.0	2.5	1.5	10.0	-	-	5.5	2.6
	Calif.	7.5	2.9	0.7	11.1	-	-	-	-
June	Calif.	6.0	2.9	0.6	9.5	8.0	2.1	3.4	3.3
	"	8.0	2.9	0.8	11.7	-	-	6.9	3.1
July	Calif.	9.0	2.9	0.9	12.8	8.5	3.2	4.0	3.6
	Wash.	8.5	2.9	1.5	12.9	8.5	3.1	5.5	3.4
August	-	-	-	-	-	-	-	5.1	3.7
	-	-	-	-	-	-	-	6.0	3.5
September	-	-	-	-	-	11.4	2.5	6.0	2.9
October	Calif.	5.2	2.3	1.5	9.0	5.5	2.6	5.8	2.8
	"	6.0	2.3	1.5	9.8	-	-	6.2	2.9
November	-	-	-	-	-	6.2	2.5	5.3	3.2
December	Oregon	5.8	2.5	1.5	9.8	-	-	-	-

Source: Tariff Board survey.

Appendix Table 14b

Imported United States Dry Onions: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Montreal, Winnipeg and Vancouver; Selected Data by Month, 1974

Month of Shipment	Montreal				Winnipeg				Vancouver				Total Landed Cost			
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.		Cost of Freight	Duty Paid	Total Landed Cost

Source: Tariff Board survey.

Onions, Dry: Acreage, Production, Yield per Acre, Value and
Value per Pound, United States, by States,
1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
California		26,500	24,400	28,200	31,800	27,725
Idaho-Oregon		11,200	11,300	12,600	12,000	11,775
Michigan		6,200	6,400	6,600	6,900	6,525
New York		13,300	11,500	13,600	13,700	13,025
Texas		24,300	22,900	26,000	27,100	25,075
Other States		<u>17,300</u>	<u>17,970</u>	<u>17,890</u>	<u>17,830</u>	<u>17,748</u>
Total	100,676	98,800	94,470	104,890	109,330	101,873
- Production, '000 lb. -						
California		865,000	833,300	789,600	1,038,900	881,700
Idaho-Oregon		512,100	557,600	640,200	564,600	568,625
Michigan		167,400	214,400	204,600	213,900	200,075
New York		412,300	230,000	299,200	397,300	334,700
Texas		499,500	427,100	494,000	515,600	484,050
Other States		<u>524,000</u>	<u>573,100</u>	<u>538,300</u>	<u>574,200</u>	<u>552,400</u>
Total	2,815,960	2,980,300	2,835,500	2,965,900	3,304,500	3,021,550
- Average Yield, lb. -						
California		32,642	34,152	28,000	32,670	31,802
Idaho-Oregon		45,723	49,345	50,810	47,050	48,291
Michigan		27,000	33,500	31,000	31,000	30,663
New York		31,000	20,000	22,000	29,000	25,697
Texas		20,556	18,651	19,000	19,026	19,304
Other States		30,289	31,892	30,089	32,204	31,125
Total	27,971	30,165	30,015	28,276	30,225	29,660
- Farm Value, \$'000 -						
California		25,622	31,665	34,041	40,358	32,922
Idaho-Oregon		18,224	35,256	39,596	21,127	28,551
Michigan		6,420	17,305	13,320	9,585	11,657
New York		14,306	19,220	18,172	21,301	18,250
Texas		21,006	25,517	66,157	28,114	35,198
Other States		<u>19,752</u>	<u>38,752</u>	<u>35,760</u>	<u>26,269</u>	<u>30,133</u>
Total	101,981	105,330	167,715	207,046	146,754	156,711
- Farm Value, ¢ per lb. -						
California		3.0	3.8	4.3	3.9	3.7
Idaho-Oregon		3.6	6.3	6.2	3.7	5.0
Michigan		3.8	8.1	6.5	4.5	5.8
New York		3.5	8.4	6.1	5.4	5.5
Texas		4.2	6.0	13.4	5.5	7.3
Other States		3.8	6.8	6.6	4.6	5.5
Total	3.6	3.5	5.9	7.0	4.4	5.2

Source: United States Department of Agriculture.

Appendix Table 16

Onions, Dry: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year (a)	Maritime Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	Sept. 7	Mar. 31	205	June 16	Mar. 31	288	July 8	Mar. 6	241
1967	Apr. 1 July 26	Apr. 17 Feb. 19	16 208	Apr. 1 -	Apr. 17 -	16 -	June 20 -	Mar. 28 -	282 -
1968	July 9	Mar. 31	265	June 14	Mar. 31	290	June 28	Mar. 31	276
1969	Apr. 1 July 22	Apr. 15 Mar. 31	14 252	Apr. 1 July 4	May 6 Mar. 31	35 270	Apr. 1 July 20	Apr. 18 Mar. 31	17 254
1970	Apr. 1 July 24	Apr. 15 Mar. 31	14 250	Apr. 1 June 26	Apr. 24 Mar. 31	23 278	Apr. 1 July 16	May 18 Mar. 31	47 258
1971	Apr. 1 July 15	May 18 Mar. 31	47 260	Apr. 1 July 15	May 18 Mar. 31	47 260	Apr. 1 July 15	May 18 Mar. 31	47 260
1972	Apr. 1 July 14	May 12 Mar. 31	41 260	Apr. 1 July 11	May 12 Mar. 31	41 263	Apr. 1 July 5	May 4 Mar. 31	33 269
1973	Apr. 1 Aug. 3	Apr. 17 Mar. 31	16 240	Apr. 1 July 6	Apr. 13 Mar. 31	12 268	Apr. 1 July 24	Apr. 13 Mar. 31	12 250
1974	Apr. 1 Sept. 20	May 10 Mar. 31	39 192	Apr. 1 Dec. 3	Oct. 4 Mar. 31	186 118	Apr. 1 July 9	May 3 Mar. 31	32 265
1975	Apr. 1 Aug. 6	May 14 Mar. 31	43 238	Apr. 1 July 16	May 20 Mar. 31	49 259	Apr. 1 Aug. 20	Apr. 29 Mar. 31	28 224

(a) Government fiscal year, commencing April 1st; ending March 31st of following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: Revenue Canada.

Onions, Dry: Dutiable Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.	%	Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
1966	62,894	1,509	2.4	61,385	97.6	4.7	1.5	31.9
1967	83,284	1,499	1.8	81,785	98.2	4.3	1.5	34.9
1968	82,614	1,239	1.5	81,375	98.5	5.0	1.5	30.0
1969	79,686	956	1.2	78,730	98.8	4.0	1.5	37.5
1970	88,829	5,330	6.0	83,499	94.0	5.1	1.5	29.4
Average 1966-70	79,462	2,107	2.7	77,355	97.3	4.6	1.5	32.6
1971	73,977	962	1.3	73,015	98.7	4.2	1.5	35.7
1972	68,549	137	0.2	68,412	99.8	6.3	1.5	23.8
1973	91,817	54,723	59.6	37,094	40.4	7.9	1.5	19.0
1974	85,326	19,966	23.4	65,360	76.6	6.3	1.5	23.8
1975	95,611	41,878	43.8	53,733	56.2	9.4	1.5	16.0
Average 1971-75	83,056	23,533	28.3	59,523	71.7	6.5	1.5	23.1

Source: Derived from Statistics Canada data.

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GREEN ONIONS

This report deals with green onions as distinct from dry onions or onion sets. With the exception of certain non-bulb forming onions, green onions are essentially any type of onion harvested in the "green" (immature) state. With dry, or mature, onions only the bulb is consumed, but with green onions, the top, or stalk, is consumed along with the small bulb. Onion sets, in contrast to dry or green onions, are not consumed as a vegetable but are used for propagation only.

In Canada, the term "shallot" is often used in the fresh produce trade interchangeably with the term "green onion." In Quebec, for example, all green onions are generally referred to as shallots. In botanical terms, the shallot is a different species (Allium ascatonicum) from the onion (A. cepa) and is a perennial that seldom produces seed and has a flavour somewhat milder than most onions. In the United States, a greater distinction appears to be made between shallots and green onions. These shallots are evidently marketed in the mature state, as a bulb onion, although shallots may also be pulled early in the immature state and marketed as a green onion (or green shallot).

Canadian statistics do not distinguish between green onions and shallots. The definition "bunching onions" may also be used in certain production statistics in reference to green onions and/or shallots. Accordingly, the term green onion is used in this report and includes both green onions and green shallots (except in cases where an accurate definition is necessary).

Green onions may be regarded as being a relatively minor Canadian crop in that annual farm value averaged an estimated \$2.4-\$2.6 million for 1971-74. Dry onions are the major onion crop and have a comparable annual farm value of \$9.3 million. The annual per capita consumption of green onions was about 1.5 pounds in 1971-74.

GROWING AND HARVESTING⁽¹⁾

Green onions are normally grown from seed by market gardeners near large urban centres. Seeds are sown somewhat more thickly than is normal for a mature bulb crop and the young plants are either thinned later than is usual for a mature bulb crop (the thinned-out plants being sold as green onions), or alternatively, the entire crop is harvested in the green or immature stage. The early green onion crop is produced from sets rather than seeds. This advances the marketing period because sets can be planted early in the spring. Onions produced from sets can be marketed in five to seven weeks. Green onions are thus an early crop in Canada and are available to some extent in May. However, the main domestic marketing season is June to September.

(1) See also the previous report on dry onions which provides a description of the common characteristics of onion growing and harvesting.

In harvesting green onions, the young plants are pulled and washed, and the roots are trimmed close to the base of the bulbs. Older, outside scales are then removed leaving the somewhat swollen and compact leaf base white and clean. The onions are tied in bunches of up to 12 (hence the name "bunching" onions) and then the tops are trimmed uniformly. A dozen small bunches are normally bound together in 4-pound bundles.

Green onions are highly perishable although they can be stored up to a week at a low temperature (0°C).

PRODUCTION, ACREAGE AND FARM VALUE

Information on production, acreage and farm value of green onions is only partially maintained. While production data, believed to be reliable, are available for Ontario and British Columbia for 1971-74,⁽¹⁾ production in other Canadian regions can only be estimated through unloads to the fresh market. The Board's production estimates are presented below.

Table 1: Green Onions: Estimated Canadian Production, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- '000 lb. -				
Maritimes (a)	15	15	15	15	15
Quebec (a)	4,000	6,100	5,900	8,200	6,050
Ontario (b)	5,183	6,769	6,347	5,294	5,898
Prairies (a)	1,000	1,000	750	500	813
B.C. (b)	<u>1,967</u>	<u>1,930</u>	<u>2,351</u>	<u>1,992</u>	<u>2,060</u>
Canada	12,165	15,814	15,363	16,001	14,836

(a) Estimated from unloads data.

(b) As reported in provincial data respecting bunching onions.

Source: Agriculture Canada, British Columbia Department of Agriculture and Ontario Ministry of Agriculture and Food.

Green onions are grown, to some extent, in all regions in Canada. However, based on reported unloads, production is apparently minor in the Maritimes. Ontario and Quebec appear to be of about equal importance as producing regions followed by British Columbia and the Prairies. While annual domestic output has been calculated at an average of 14.8 million pounds for 1971-74, this aggregate figure could change depending on the data used to determine Quebec's production. For example, one recent estimate by Agriculture Canada places

(1) Provincial data prior to 1971, particularly for Ontario, are subject to statistical discrepancies.

Quebec production at 9.2 million pounds in 1973. This estimate does not, however, seem to be supported by unload data that, while normally greatly understating actual production, suggest a much lower figure.⁽¹⁾

While production figures for years prior to 1971 are not given in Table 1, the Board estimated that annual production during the 1960s was in the range of 14-15 million pounds.⁽²⁾ Since production for 1971-74 has been estimated at some 15 million pounds annually, there does not appear to have been any significant growth in production recently.

With respect to yield and farm value, partial information is available from Ontario and British Columbia and is shown below.

Table 2: Green Onions: Acreage, Yield, Farm Value and Farm Value per Pound, Ontario and British Columbia, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -					
Ontario	336	347	338	281	326
B.C.	103	97	105	102	102
- Average Yield, lb. -					
Ontario	15,426	19,507	18,778	18,840	18,092
B.C.	19,097	19,897	22,390	19,549	20,206
- Farm Value, \$'000 -					
Ontario	797	1,116	1,200	1,153	1,067
B.C.	224	284	371	381	320
- Farm Value, ¢ per lb. -					
Ontario	15.4	16.5	18.9	21.8	18.1
B.C.	12.4	14.7	15.8	19.1	15.5

Source: Ontario Ministry of Agriculture and Food: British Columbia Department of Agriculture.

Based on 1971-74 British Columbia and Ontario data, the yield in Canada is probably 18,000-20,000 pounds per acre. According to a 1973 estimate,⁽³⁾ the average yield in Quebec is probably similar to that in Ontario. Average yields in British Columbia in 1971-74 have been consistently higher than those in Ontario and probably exceed those in all other Canadian growing regions.

- (1) In Table 1, Quebec green onion production is estimated at about twice the volume of unloads of Quebec origin. Further adjustments are required for the 1971 year as a result of changes made in reporting unload shipments.
- (2) Processor acquisitions plus domestic unloads were 10.7 and 10.1 million pounds, respectively, in 1961-65 and 1966-70. Unloads would be subject to a substantial undercount.
- (3) Agriculture Canada estimates, for Quebec's 1973 crop year, a yield of 18,776 pounds per acre. This would be close to the 1973 Ontario average yield (18,778 pounds per acre) given in Table 2.

For British Columbia and Ontario combined, the total annual farm value averaged some \$1.4 million. These provinces accounted for about 54 per cent of Canadian production. If estimates for Quebec and other growing areas are included, the total farm value of Canada's green onion crop is probably \$2.4-\$2.6 million.

SUPPLY AND DISPOSITION

Canada's crop of green onions is sold mainly to the domestic fresh market. According to 1971-74 estimates (see Table 3), about 86 per cent of production went for fresh market sale; the remainder for processing. Green onions used in processing have small bulbs and are pickled or included in various mixed vegetable packs. A small share of this crop may be exported to the United States but data on the quantities involved are not available.⁽¹⁾ It is, similarly, not possible to determine the volume of green onions in processed form that may be imported or exported.

Table 3: Green Onions: Supply and Disposition, Canada, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>
	- '000 lb. -				
<u>Total Production</u> ^(a)	12,165	15,814	15,363	16,003	14,836
<u>Total Imports (Fresh)</u>	18,843	20,191	22,152	22,797	20,996
<u>Total Domestic Disappearance</u>	31,008	36,005	37,515	38,798	35,832
Consumed in processed form	2,400	1,975	2,050	2,500	2,231
From domestic production	2,250	1,800	1,800	2,250	2,025
Imported for processing	150	175	250	250	206
Fresh market consumption	28,608	34,030	35,465	36,298	33,601
From domestic production	9,915	14,014	13,563	13,753	12,811
Imported	18,693	20,016	21,902	22,547	20,790

(a) Estimated (see Table 1).

Source: Derived from Statistics Canada and Agriculture Canada data.

Notwithstanding that the production estimates given in Table 3 may be understated, it is clear imports greatly exceed domestic output. Imports averaged 21.0 million pounds annually in 1971-74 compared with an estimated domestic output of 14.8 million pounds. Imports appear to have accounted for slightly less than 60 per cent of total domestic disappearance for 1971-74.

(1) Green onion exports, if any, are classified under commodity class 91-70 "Onions and shallots, fresh" with no breakdown available as to dry onions as distinct from green or bunched onions.

Most processor requirements are supplied domestically. For 1971-74, it is estimated that Canadian growers met some 90 per cent of processor demands. On the other hand, annual fresh market demand was estimated at 33.6 million pounds for 1971-74, while imports averaged 20.8 million pounds yearly. It is thus apparent that fresh market demand is met primarily through imports with domestic growers accounting for probably less than 40 per cent of domestic fresh market shipments.

Market trends cannot be depicted accurately because of the difficulties in deriving production volumes prior to 1971. Nonetheless, it is clear that imports have accounted for a growing share of the fresh market. Annual imports have increased notably and consistently since 1961 - from an average of 12.2 million pounds in 1961-65 to 16.8 million pounds in 1966-70 and 21.5 million pounds in 1971-75.⁽¹⁾ The domestic output of this crop appears to have been roughly stable since 1961 while imports have increased by some 76 per cent. Estimates indicate that imports comprised some 45 per cent of fresh market demand in 1961-65 compared with 60 per cent for 1971-74.

The principal marketing season for green onions runs from June to September. In 1971-74, an estimated 92 per cent of domestic fresh market shipments occurred in these four months. However, domestically grown green onions may, to some extent, be available in earlier or later months (see Appendix Table 1). During the on-season, domestic production met 83 per cent of the fresh market demand according to 1971-74 data. Hence import competition is relatively limited during the on-season. Imports, however, supply most of the fresh market in October and the entire market from November to May (see Appendix Table 2).

While annual imports have risen markedly since the early 1960s, the increase, in absolute terms, has, however, occurred primarily in the off-season period as shown below.

Table 4: Green Onions: Estimated Fresh Market Imports, On-Season and Off-Season, 1961-65 to 1971-74

	Average <u>1961-65</u>	Average <u>1966-70</u>	Average <u>1971-74</u>
	- '000 lb. -		
On-season imports ^(a)	1,494	1,489	2,441
Off-season imports ^(b)	<u>10,627</u>	<u>15,228</u>	<u>18,349</u>
Total	12,121	16,717	20,790

(a) June, July, August, and September.

(b) January-May; October-December.

Source: Derived from Statistics Canada data.

(1) Although a separate tariff item for green onions was not created until 1968, import data for this product were maintained prior to that date.

While annual imports rose from some 12.1 million pounds in 1961-65 to 20.8 million pounds in 1971-74, 89 per cent of the annual increment derives from green onions entered in the off-season when little or no domestic produce is available. While on-season imports during 1971-74 supplied about 20 per cent of on-season consumption, such imports had nonetheless increased by some 1 million pounds in comparison with the 1961-65 yearly average.

IMPORTS

The United States supplies most imports (97 per cent during 1971-75) while a small volume originates in Mexico (see Appendix Table 3). Growing regions in Arizona and California have accounted for nearly all U.S. fresh market exports to Canada (see Appendix Table 6).

The greatest proportion of imports enter into Ontario and Quebec (see Appendix Table 4). These provinces accounted for some 59 per cent of annual imports in 1971-75. The corresponding figure for western provinces was 40 per cent. Imports into the Atlantic region were minor.

PRICES

In 1974, the farm-gate selling price for green onions ranged from 19 to 22 cents per pound according to Ontario and British Columbia data.

Wholesale-to-retail prices in 1974 are shown in Appendix Table 7 for five principal regional markets. In Montreal and Toronto, the absence of wholesale quotations for imports in July, August and part of September, indicates that in these months competition from local supply greatly curtailed import volumes. In Vancouver, there appears to be no imports from July to mid October which, similarly, indicates the competitiveness of local growers in these months. In Halifax and Winnipeg, however, imports occur throughout the year, reflecting the limited extent of local production. An intermarket comparison of 1974 prices indicates wholesale prices, both for imported and domestic produce, were lowest in Montreal and Toronto and highest in Halifax and Vancouver.

The Board undertook a field survey of costs relating to imports and this information is presented in Appendix Tables 8 and 9 and in summary below. As with most fresh vegetables, freight charges and related transport costs substantially exceeded import duties. As green onions are imported mainly from California and Arizona, transport costs provide an element of protection to domestic growers that significantly outweighs the protection conferred by the specific duty of $1\frac{1}{2}$ cents.

Table 5: Green Onions: Landed Cost in Toronto, Winnipeg, and Vancouver, 1972-1974

		<u>Cost</u> <u>f.o.b.</u>	<u>Freight,</u> <u>Brokerage,</u> <u>etc.</u>	<u>Duty</u> ^(a)	<u>Total</u> <u>Landed</u> <u>Cost</u>
- range in ¢ per lb. -					
Toronto	1972	14.2-28.8	3.6-4.2	0.7-1.5	19.3-34.4
	1973	18.7-20.3	4.0-4.3	Free-1.5	22.7-26.0
	1974	18.0-19.6	4.3-4.4	1.5	23.9-25.4
Winnipeg	1974	11.4-23.9	3.2-8.6	0.6-1.5	15.6-34.0
Vancouver	1974	10.2-22.7	2.9-4.4	Free-1.5	13.6-28.1

(a) Specific duty of $1\frac{1}{2}$ cents per pound; off-season rate may be 5 p.c. or Free.

Source: Appendix Tables 8 and 9.

TARIFF CONSIDERATIONS

Green onions are classified under tariff item 8728-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Green onions per pound	Free	$1\frac{1}{2}$ cts. or 5 p.c.	$1\frac{1}{2}$ cts. or 10 p.c.

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 44 weeks which may be divided into two separate periods, and the ad valorem duty shall apply whenever the specific duty is not in effect.

The item has existed in the above form since 1969, and is bound under GATT. On a temporary basis, the 5 p.c. alternative rate was suspended, and free entry substituted, for the period February 20, 1973 to June 30, 1974 and again from November 19, 1974 to June 30, 1977. At the latter date, unless the suspension is further extended, the item will revert to its permanent statutory form.

The ambiguity of the terms "green onion" and "shallot" has been pointed out earlier. True shallots and, to some extent, green onions may also be imported, if termed shallots, under tariff item 8400-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Onion sets and shallots, in their natural state	Free	15 p.c.	30 p.c.

The volume of green onions entered under this second tariff classification is relatively unimportant, and the former classification (tariff item 8728-1) would evidently pertain to almost all imports.⁽¹⁾

The specific duty currently provided for under tariff item 8728-1 ($1\frac{1}{2}$ cents per pound) and its period of application (44 weeks) were established when this item was introduced as of January 1, 1968. Prior to 1968, green onions were classified as "onions, n.o.p." under tariff item 8717-1.⁽²⁾ Tariff item 8728-1 was introduced with an off-season rate of 9 p.c. with staged reduction down to 5 p.c. This latter rate became effective June 4, 1969. With the exception of about four months in 1974, the 5 p.c. off-season rate has been suspended since February 1973, free entry thus applying when the specific duty is not in effect.

The period during which the specific duty of $1\frac{1}{2}$ cents has been applied in recent years is set forth in Appendix Table 10. In the western tariff zone in most years since 1968, the specific duty has been in effect for the full seasonal period of 44 weeks (308 days) permitted under tariff item 8728-1. However, the authorized period was only partly utilized in 1968, 1972 and 1975. In the central Canada zone, with the exception of 1969, the specific duty was normally in effect for only 25-29 weeks. For the Maritimes, the specific duty has been in effect in only three years (1972, 1973, and 1974) since 1968, being only partially utilized in two years.

Based on a 1975 import price of about 19 cents per pound, the ad valorem equivalent of the present $1\frac{1}{2}$ cents specific duty on green onions equals about 8 per cent (see Appendix Table 11a). As the average import price has exhibited a more or less steady increase since 1966, the specific duty of $1\frac{1}{2}$ cents has conferred a declining degree of protection to domestic producers. In terms of the ad valorem equivalent, the level of protection afforded averaged an estimated 12.1 per cent in 1966-70, dropping to an average of 9.6 p.c. for 1971-75.

The U.S. tariff does not contain a specific classification for green onions, such onions being imported under "onions, other" (item 136.91), a category that would also include dry onions. The U.S. duty is $1\frac{3}{4}$ cents per pound on imports from Canada.

With respect to green onions entered under tariff item 8728-1, The Canadian Horticultural Council requested that the M.F.N. and Gen. specific duty be raised, from the existing $1\frac{1}{2}$ cents per pound to 3 cents per pound. A minimum ad valorem rate of 20 per cent was also requested. The Council also advocated that the 5 p.c. off-season

(1) For the 1971-75 period, green onions entered under tariff item 8728-1 averaged 21,282,000 pounds as against imports of shallots, more specifically, averaging only 181,000 pounds under tariff item 8400-1. The latter figure excludes imports of onion sets which are also entered under tariff item 8400-1.

(2) The tariff history of tariff item 8717-1 is included in the previous report covering dry onions.

rate (temporarily suspended) be eliminated and that the 44-week seasonal application be reduced to 32 weeks. At the public sittings, the Council stated that the increase in the specific duty was sought in order to assist domestic growers to obtain a better share of the home market. The Council also stated that it believed the reduction advocated in the length of the dutiable period (from 44 to 32 weeks) would justify a higher specific duty.⁽¹⁾ The Canadian Food Processors Association made no specific proposals respecting green onions.

The increase in the specific duty proposed by the Council, from $1\frac{1}{2}$ cents to 3 cents, would entail a higher cost to consumers. On the other hand, this higher cost would be significantly offset by the proposed reduction in the duration of the specific duty period and by the removal of the present 5 p.c. off-season rate.

Principally because the term "shallot" has been used interchangeably with the term "green onion" to refer to the same commodity, certain revisions to the existing nomenclature appear appropriate. As noted, green onions if called "shallots," enter under tariff item 8400-1 "onion sets and shallots, in their natural state." This item would cover both green (immature) shallots and "dry," or "bulb," shallots.⁽²⁾ The grouping of onion sets and shallots, under tariff item 8400-1, is felt to be inappropriate inasmuch as onion sets are used for propagation while shallots usually are used as vegetables. The Council⁽³⁾ advocated the inclusion of green onions and shallots in a single tariff item. This could be achieved by rewording tariff item 8728-1 to read "green onions and green shallots." Present tariff item 8400-1 could then be amended to read "onion sets, in their natural state." Because shallots might also be imported in the dry state, a corresponding minor revision to the nomenclature of tariff item 8717-1 would also be necessary.⁽⁴⁾

Regarding the above nomenclature revisions, it may also be noted that the rate under tariff item 8400-1 (15 p.c. M.F.N. and 30 p.c. Gen.) is applicable throughout the year. This may be warranted inasmuch as the item covers onion sets that are storable for long periods. However, the green onions and green shallots now also entering under tariff item 8400-1 are non-storable and do not warrant year-round protection. The revisions outlined above would, more suitably, apply a seasonal duty to green onions and/or shallots now entered under tariff item 8400-1.

Appendix Table 11b indicates the minor volume of imports described as shallots and entered under tariff item 8400-1, as well as average import prices. The data shown exclude onion sets also entered under this item. The per pound price of these shallots (averaging 14.8 cents for 1971-75) appears to be similar to that for green onions entered under tariff item 8728-1. As a result, shallots dutiable at 15 p.c. under tariff item 8400-1 are dutiable at a higher rate than the very similar green onions dutiable at $1\frac{1}{2}$ cents per pound under tariff item 8728-1.

(1) Transcript, Volume 10, p. 1432.

(2) Shallots entered under tariff item 8400-1 are believed to be largely green onions, or green shallots, as opposed to dry shallots.

(3) Transcript, Volume 10, p. 1252.

(4) Tariff item 8717-1 ("Onions, n.o.p.") which covers dry onions, would be revised, e.g., to "Onions and shallots, n.o.p."

When tariff item 8728-1 was introduced in 1968, as an extract from previous tariff item 8717-1, no change was made to the specific duty period of 44 weeks. However, whereas onions covered by tariff item 8717-1 are a storable commodity, green onions are not storable, and the present 44-week period authorized under tariff item 8728-1 seems unnecessarily long. As noted earlier, the main domestic marketing period for green onions is June to September (approximately 17 weeks). For the 1971-74 period, marketings in these four months accounted for 92 per cent of domestic fresh market shipments. A substantial reduction in the existing seasonal period provided for under tariff item 8728-1 would appear to be warranted. An authorized period of 22 weeks, for example, would cover the main 17-week marketing period and would permit a further five-week application at either end of that period.

CONCLUSIONS

Imports of green onions have risen markedly in recent years, from a yearly average of 12.2 million pounds in 1961-65 to 21.0 million pounds in 1971-74. This pronounced rise in imports would indicate some weakening of the competitive position of domestic growers, although import growth, to a large extent, has been in those months of the year when domestically grown green onions are not available. Based on a production estimate of 14.8 million pounds, the fresh market consumption of this vegetable is estimated to have averaged 33.6 million pounds in 1971-74 with imports accounting for about 62 per cent of fresh market sales.

Employing a 1975 average import price of about 19 cents per pound, the $1\frac{1}{2}$ -cent specific duty provided for green onions under tariff item 8728-1 is estimated at present to equate to an ad valorem rate of protection of some 8 per cent. The protection conferred by the specific duty has been reduced, due to price increase, from an average of 12.1 p.c. in 1966-70 to 9.6 p.c. in 1971-75 and leads the Board to conclude that an increase in the present duty is justified. Therefore, it recommends that the specific duty under tariff item 8728-1 be raised to $2\frac{1}{2}$ cents per pound. Using a 1975 import price base of roughly 19 cents, the $2\frac{1}{2}$ cents per pound specific duty recommended would be equivalent to about 13.2 p.c. To stabilize the degree of protection afforded in the event of general price increases, the Board further recommends an ad valorem minimum of $12\frac{1}{2}$ per cent which would be similar to the protection level prevailing, on average, during 1966-70. This minimum ad valorem rate would come into effect on shipments valued at more than 20 cents per pound.

Green onions are not a storable vegetable and the Board concludes that a 22-week seasonal period would be sufficient to encompass fully the domestic marketing period. The Board also recommends the permanent elimination of the 5 p.c. M.F.N., and 10 p.c. Gen., off-season rate. Free entry would hence be provided during any period when the specific duty is not in effect.

The Board further recommends that tariff item 8728-1 be amended to include green shallots and that the term "shallots" be deleted from tariff item 8400-1.

RECOMMENDATIONS

The Board recommends the deletion of existing tariff item 8728-1 and the insertion of the following schedule:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Onions and shallots, green per pound	Free	2½ cts. but not less than 12½ p.c., or Free	2½ cts. but not less than 12½ p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 22 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Appendix Table 1

Onions, Green, and Shallots: Estimated Monthly Distribution
of Fresh Shipments^(a), 1971-1974

<u>Month</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- thousand pounds -					
Jan.	-	-	-	-	-
Feb.	-	-	-	-	-
Mar.	-	-	-	-	-
Apr.	-	-	27	3	8
May	109	364	420	124	254
June	2,707	3,686	2,686	2,160	2,810
July	2,518	2,999	3,933	3,474	3,231
Aug.	1,874	3,896	3,920	4,393	3,521
Sept.	2,023	2,354	1,899	2,552	2,207
Oct.	605	715	610	1,020	738
Nov.	79	-	68	25	43
Dec.	-	-	-	-	-
Total	9,915	14,014	13,563	13,751	12,811

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 2

Onions, Green, and Shallots: Estimated Monthly Distribution of
Fresh Market Consumption, 1971-74

Month	Average 1971-74			Imports as % of Consumption per cent
	From	From	Total	
	Domestic	Imports	Consumption	
	<u>Production</u>	<u>Imports</u>	<u>Consumption</u>	
	- thousand pounds -			
Jan.	-	1,872	1,872	100.0
Feb.	-	1,995	1,995	100.0
Mar.	-	2,320	2,320	100.0
Apr.	8	2,740	2,748	99.7
May	254	3,421	3,675	93.1
June	2,810	1,049	3,859	27.2
July	3,231	329	3,560	9.2
Aug.	3,521	324	3,845	8.4
Sept.	2,207	739	2,946	25.1
Oct.	738	1,584	2,322	68.2
Nov.	43	2,057	2,100	98.0
Dec.	-	2,361	2,361	100.0
Total	12,811	20,790	33,601	61.9

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 3

Onions, Green, and Shallots: Imports by Country of Origin,
1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -				
1966	14,016	41	9	14,066
1967	16,880	99	4	16,983
1968	17,500	11	36	17,547
1969	16,726	7	47	16,780
1970	18,128	120	126	18,374
Average 1966-70	16,650	56	45	16,750
1971	18,529	254	59	18,843
1972	19,497	264	429	20,191
1973	21,477	513	162	22,152
1974	21,717	1,065	15	22,797
1975	22,967	342	22	23,332
Average 1971-75	20,838	488	137	21,463

Source: Statistics Canada.

Appendix Table 4

Onions, Green, and Shallots: Imports by Province and Region,
1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	103	154	177	221	284	302
Nfld.	*	3	1	7	2	-
P.E.I.	4	3	*	2	*	*
N.S.	55	62	72	89	144	96
N.B.	44	87	104	124	137	205
Central Region	9,156	11,016	12,161	12,694	12,872	13,709
Que.	4,587	5,461	5,804	6,607	6,774	7,116
Ont.	4,569	5,555	6,356	6,087	6,097	6,594
Western Region	7,491	7,672	7,853	9,237	9,641	9,321
Man.	1,506	1,485	1,690	1,972	2,276	1,885
Sask.	813	694	786	1,028	1,030	1,132
Alta.	2,327	2,558	2,432	2,623	3,038	3,261
B.C.	2,844	2,936	2,945	3,615	3,297	3,041
Canada	16,750	18,843	20,191	22,152	22,797	23,332

Source: Statistics Canada.

Appendix Table 5

Onions, Green, and Shallots: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	1,881	11.2	2,557	11.9	2,366	2,775	2,389	3,138
Feb.	1,604	9.6	1,947	9.1	1,771	2,287	2,116	1,894
Mar.	1,792	10.7	2,127	9.9	1,981	2,531	1,901	2,306
Apr.	2,305	13.8	2,434	11.3	2,183	2,605	2,654	2,431
May	2,435	14.5	3,161	14.7	3,379	3,303	3,024	3,237
June	1,269	7.6	2,149	10.0	2,238	1,507	2,412	2,421
July	742	4.4	822	3.8	407	454	1,715	922
Aug.	315	1.9	522	2.4	489	342	1,028	490
Sept.	324	1.9	553	2.6	470	612	640	628
Oct.	805	4.8	1,239	5.8	955	1,427	1,255	1,513
Nov.	1,498	8.9	1,825	8.5	1,934	1,991	1,745	1,882
Dec.	<u>1,780</u>	<u>10.6</u>	<u>2,126</u>	<u>9.9</u>	<u>2,016</u>	<u>2,319</u>	<u>1,918</u>	<u>2,469</u>
Total	16,750	100.0	21,463	100.0	20,191	22,152	22,797	23,332

Source: Statistics Canada.

Appendix Table 6

Onions, Green, and Shallots: Percentage Distribution of Fresh
Market Imports from United States,
by State of Origin, by Region,
1972-1974

	<u>Arizona</u>	<u>California</u>	<u>Others</u>	<u>Total</u>
- per cent -				
<u>1972</u>				
Maritime Region	29.9	61.2	9.0	100.0
Central Region	87.1	12.7	0.2	100.0
Western Region	0.4	99.5	0.1	100.0
Canada	54.0	45.8	0.2	100.0
<u>1973</u>				
Maritime Region	23.2	35.8	41.0	100.0
Central Region	86.2	13.2	0.6	100.0
Western Region	*	99.2	0.8	100.0
Canada	55.4	43.8	0.8	100.0
<u>1974</u>				
Maritime Region	93.8	4.3	1.9	100.0
Central Region	83.1	16.4	0.5	100.0
Western Region	*	99.9	*	100.0
Canada	51.3	48.3	0.4	100.0

Source: Agriculture Canada.

Appendix Table 7

Onions, Green, and Shallots: Wholesale to Retail Selling Price at Halifax, Montreal,
Toronto, Winnipeg and Vancouver, 1974

Week Ending	Halifax		Montreal		Toronto		Winnipeg		Vancouver	
	Cal.	(a)	Cal.	(a)	Cal.	(a)	Cal.	(c)	Cal.	(c)
		N.S.		Que.		Ont.		Man.		B.C.
		(b)		(c)		(c)		(c)		(c)
- cents per pound -										
Jan. 4	38.9		22.9		21.6		38.8		37.0	
11	38.9		26.4		24.3		37.0		41.3	
18	38.9		32.7		28.5		48.3		49.5	
25	44.4		34.7		30.6		44.5		45.8	
Feb. 1	55.0		26.4		25.7		41.3		42.0	
8	53.9		23.6		25.7		39.5		43.8	
15	37.8		22.9		23.6		38.3		40.8	
22	37.8		22.2		20.8		37.5		38.8	
Mar. 1	33.3		21.6		20.2		37.0		37.5	
8	33.3		20.8		18.8		33.8		35.0	
15	33.3		21.6		19.4		32.5		36.3	
22	44.4		21.6		18.8		32.0		33.3	
29	44.4		21.6		18.8		30.8		33.8	
Apr. 5	41.7		20.2		18.8		30.8		33.8	
12	41.7		19.4		18.8		32.5		36.3	
19	41.7		19.7		18.8		30.8		36.3	
26	37.2		20.2		20.2		33.3		36.3	
May 3	37.2		20.8		22.9		35.0		36.3	
10	37.2		21.6		23.6	22.0	35.0		37.5	
17	41.7		22.2		22.9	22.0	38.3		39.5	
24	43.9		23.9		24.3	22.0	37.5		39.5	
31	33.3		26.4		25.0	25.8	37.5		40.0	
June 7	33.3		29.9		27.1	27.0	42.5		42.0	
14	55.6		28.5		25.7	30.0	42.0		37.0	
21	48.9		27.1			32.5	43.8	25.0		
28	48.9	60.0	25.7	30.0		32.5	43.8	27.0		
July 5	48.9	60.0		32.5		32.5	48.3	30.0		
12	47.2	60.0		31.3		29.5	50.0	25.8		
19	31.1	50.0		28.1		32.5	45.8	26.3		
26	43.1	50.0		25.0		28.3	47.0		35.0	

(a) Imported United States Green Onions and Shallots: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Winnipeg and Vancouver; Selected Data by Month, 1974

Month of Shipment	Winnipeg					Vancouver				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
- cents per pound -										
January	Calif.	22.7	3.7	1.5	27.9	Calif.	18.2	3.2	1.5	22.9
	-	-	-	-	-	"	22.7	3.9	1.5	28.1
	-	-	-	-	-	"	13.6	3.9	1.5	19.0
February	-	-	-	-	-	Calif.	12.5	3.9	1.5	17.9
	-	-	-	-	-	"	14.8	2.9	1.5	19.1
March	Calif.	12.5	3.3	0.6	16.4	Calif.	12.5	3.5	-	16.0
	"	11.4	3.7	0.6	15.7	"	11.4	3.8	-	15.2
	-	-	-	-	-	"	11.4	3.5	-	14.9
April	Calif.	11.4	3.6	0.6	15.6	Calif.	10.2	3.4	-	13.6
	-	-	-	-	-	"	12.5	3.5	-	16.0
	-	-	-	-	-	"	13.6	4.0	-	17.6
May	Calif.	15.9	3.2	1.5	20.6	Calif.	13.6	3.9	1.5	19.0
	"	17.0	4.2	1.5	22.7	Calif.	11.8	3.2	1.5	16.5
	"	17.0	3.7	1.5	22.2	Calif.	15.9	3.9	1.5	21.3
June	Calif.	19.3	4.2	1.5	25.0	Calif.	18.2	3.9	1.5	23.6
	"	19.3	4.9	1.5	25.7	"	19.3	4.4	1.5	25.2
	"	21.6	4.9	1.5	28.0	-	-	-	-	-

Onions, Green: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1968-1976.

Year	Maritime Provinces			(b) Central Canada			(c) Western Canada		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1968	-	-		May 29	Dec. 19	204	May 29	Oct. 21	145
1969	-	-		-	-	-	May 27	Mar. 26	303
1970	-	-		May 8	Nov. 27	203	May 21	Mar. 25	308
1971	June 11	Nov. 19	161	May 11	Nov. 18	191	June 4	Mar. 31	301
1972	June 13	Oct. 13	122	May 16	Nov. 24	192	May 25	Dec. 22	211
1973	June 15	Mar. 31	289	May 11	Nov. 2	175	Apr. 25	Feb. 27	308
1974	-	-	-	May 10	Dec. 20	224	Apr. 30	Mar. 3	307
1975	-	-	-	May 21	Nov. 7	170	June 10	Nov. 13	156

(a) Government fiscal year commencing April 1st; ending March 31st of following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: Department of National Revenue.

Onions, Green. (a) Dutiable Imports and the Ad Valorem Equivalent of the M.F.N. Specific Duty, 1966-1975

Year	Imports			Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%			
1966	13,896	3	0.02	11.7	1.5	12.8
1967	16,911	20	0.12	10.8	1.5	13.9
1968	17,230	52	0.30	11.8	1.5	12.7
1969	16,719	4	0.02	14.5	1.5	10.3
1970	18,166	63	0.35	13.1	1.5	11.5
Average 1966-70	16,584	28	0.17	12.4	1.5	12.1
1971	18,758	21	0.11	13.1	1.5	11.5
1972	19,666	55	0.28	15.2	1.5	9.9
1973	22,072	10,058	45.57	15.8	1.5	9.5
1974	22,699	9,920	43.70	17.7	1.5	8.5
1975	23,215	15,239	65.64	18.9	1.5	7.9
Average 1971-75	21,282	7,059	33.17	15.6	1.5	9.6

(a) Green onions, or shallots, entered under tariff item 8728-1.

Source: Derived from Statistics Canada data.

Shallots: (a) Dutiable Imports, 1966-1975

Year	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.	%	Price f.o.b. Dutiable ¢/lb.
1966	170	-	-	170	100.0	13.3
1967	72	-	-	72	100.0	15.5
1968	317	-	-	317	100.0	13.3
1969	61	-	-	61	100.0	12.7
1970	208	1	0.5	207	99.5	13.9
Average 1966-70	166	*	0.6	165	99.4	13.6
1971	85	-	-	85	100.0	20.5
1972	525	-	-	525	100.0	10.7
1973	80	13	16.2	67	83.8	24.3
1974	98	2	2.0	96	98.0	21.7
1975	117	18	15.4	99	84.6	18.5
Average 1971-75	181	7	3.9	174	96.1	14.8

(a) Green onions, or shallots, entered under tariff item 8400-1.

Source: Derived from Statistics Canada data.

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ONION SETS

Onion sets are small, dry bulbs normally used to produce onions. They are not consumed as a vegetable but are used, as an alternative to direct seeding or planting of seedlings, to produce an earlier crop. Onion sets are obtained by sowing seed thickly forcing the plants to compete with one another for growing space, moisture and nutrients. This competition results in small, early maturing bulbs. Correctly graded, the small bulbs, or sets, are used by growers the following year to produce early large or mature dry onions or early green onions.⁽¹⁾ Seed for production of sets is sown as soon as the soil can be properly worked in the spring and the danger of heavy frost has passed.

Harvesting, which generally begins when the tops weaken and fall over, is done in ways similar to those used for large bulb onions but greater care is taken to ensure complete curing and drying. The sets are then stored at about 0°C with a relative humidity of about 40 per cent. This is a low relative humidity compared with the 70 to 75 per cent relative humidity used in storing large bulb onions to prevent shrinkage. Considerable shrinkage of onion sets therefore occurs in storage. The ideal size of sets is $\frac{1}{2}$ to $\frac{3}{4}$ inch in diameter; larger ones tend to produce seedstalks, while smaller bulbs tend to produce weak plants or dry out in storage. The storage period for sets tends to be longer than for mature bulbs. Proper maturity is, therefore, essential.

PRODUCTION, ACREAGE AND FARM VALUE

While onion sets are grown to some extent in other Canadian provinces, Ontario is believed to account for more than 90 per cent of domestic production.⁽²⁾ The Ontario data given below are thus representative of the bulk of this crop.

Domestic production of onion sets has evidently been decreasing during the review period as Ontario output declined from an average of 12.0 million pounds in 1961-65 to 8.3 million pounds in 1971-74. This decrease has resulted from both a reduction in acreage and from falling yields per acre. The farm value of this crop, however, rose notably between 1961-65 and 1971-74 because of a doubling in average unit farm values. Considering an Ontario farm value of \$515,000, the total domestic farm value for onion sets is probably about \$575,000 if minor production in other growing regions is included.

-
- (1) A more complete description of onion cultivation and harvesting generally is contained in the report respecting dry onions.
 - (2) In response to a request from the Board, Agriculture Canada furnished the following estimates for production outside of Ontario as based on the 1973 crop year: British Columbia - 476,000 pounds (no acreage given); Prairie region - 10-15 acres (no production given); Quebec - 169,200 pounds (no acreage given). Production in the Maritimes was indicated as insignificant.

Table 1: Onion Sets: Ontario, Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, 1961-1974

<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -							
553	618	490	477	490	344	450	- 18.6
- Production, '000 lb. -							
12,004	12,217	7,610	9,499	9,195	6,970	8,319	- 30.7
- Average Yield, lb. -							
21,707	19,769	15,531	19,914	18,765	20,262	18,487	- 14.8
- Farm Value, \$'000 -							
378	500	382	687	562	427	515	+ 36.2
- Farm Value, ¢/lb. -							
3.1	4.1	5.0	7.2	6.1	6.1	6.2	+100.0

Source: Ontario Ministry of Agriculture and Food.

SUPPLY AND DISPOSITION

Using reported Ontario production figures together with those of imports as calculated by the Board, Table 2 below indicates that most of the domestic market for onion sets is supplied domestically.

Table 2: Onion Sets: Estimated Production and Imports, Crop Years, Canada, 1961-1974

	<u>Canada, 1961-1975</u>						
	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>	<u>1971-74</u>
- '000 lb. -							
Domestic							
Production	12,004	12,217	7,610	9,499	9,195	6,970	8,319
Imports	496	631	584	174	612	1,464	709
Total							
Supply	12,500	12,848	8,194	9,673	9,807	8,434	9,028
Imports as %							
of Total							
Supply	4.0	4.9	7.1	1.8	6.2	17.4	7.9

Source: Ontario Ministry of Agriculture and Food and Statistics Canada data.

Although the import figures shown in Table 2 are calculated from classifications subject to certain discrepancies, it is evident that imports have increased since 1961-65 while production has tended to decline. Imported onion sets accounted, on average, for close to 8 per cent of total supply during 1971-74 compared with 4.0 per cent during 1961-65. In the 1974-75 crop year, about 17 per cent of the total supply was met by imports.

IMPORTS

Onion sets are principally sold at the commencement of the domestic growing or planting season. The bulk of import shipments thus occurs in March and April. It is estimated, based on 1971-74 data, that about two-thirds of crop year imports are entered in these two months as shown in Appendix Table 1.

Certain statistical problems preclude the presentation of precise figures concerning onion set imports according to country of origin. However, the Board has estimated that about three-quarters of the total imports in 1966-70 came from the United States and most of the rest from the Netherlands. However, in 1971-75, the Netherlands accounted for more than 60 per cent of the total with the remainder coming from the United States.⁽¹⁾ The Netherlands has thus become the most important exporter of onion sets to Canada in more recent years.

TARIFF CONSIDERATIONS

Imports of onion sets are classified under tariff item 8400-1 as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Onion sets and shallots, in their natural state	Free	15 p.c.	30 p.c.

This item also covers certain types of onions for consumption as a table vegetable, i.e., shallots whether green (immature) or dry (mature bulb shallots).

Prior to 1948, onion sets were dutiable at rates of Free B.P.; 30 p.c. M.F.N.; and 30 p.c. (but not less than $\frac{3}{4}$ cent per pound) Gen. The M.F.N. rate was reduced to 15 p.c. in January 1948 and the Gen. rate to 30 p.c., without qualification, on June 1, 1950. This item is bound under GATT.

In contrast to most tariff items covering fresh vegetables, tariff item 8400-1 provides for a rate of duty to be applied throughout the year.

(1) U.S. imports are estimated as annually averaging 478,000 pounds for the crop years 1966-70 declining to 262,000 pounds in 1971-75. Comparable figures for the Netherlands are 143,000 pounds and 447,000 pounds respectively.

In its brief to the Board, The Canadian Horticultural Council advocated, for "onion sets and shallots, in their natural state," that the existing 15 p.c. M.F.N. rate be raised to 20 p.c. The Council did not propose any specific duty for tariff item 8400-1. It was requested that the B.P. rate also be 20 p.c., whereas free entry is now provided for B.P. imports under tariff item 8400-1. During the public sittings held subsequent to the presentation of its brief, the Council made certain revisions to its original submission, requesting that shallots be deleted from tariff item 8400-1.⁽¹⁾

According to import statistics, the average per pound import price of onion sets was 18.4 cents in 1974 and 20.3 cents in 1975, averaging 16.2 cents for 1971-75. The existing M.F.N. duty of 15 p.c. would have, therefore, a specific duty equivalent of about 3 cents per pound using the 1975 import price. A rate of 20 p.c., as suggested by the Council, would be equal to a duty of 4 cents per pound. It is readily apparent that the request by the Council would raise the level of protection for the growers of sets but would increase the cost of this commodity to its users.

In its brief, the Council requested the introduction of a 20 p.c. rate on B.P. onion set imports due to possible trans-shipments:

The Netherlands is a large producer of onion sets and now that the United Kingdom and Ireland are part of the Common Market, shipments could easily be made from the Netherlands to these countries and then be re-exported to Canada thus evading the MFN rate of duty.⁽²⁾

There is no evidence that the trade situation outlined above does occur, or might in future take place.⁽³⁾ While the Netherlands is now the most important exporter of onion sets to Canada, such exports are made directly. Also, in 1971-75, there were no recorded imports of onion sets from any country granted B.P. status, and thus there is no evidence of any trans-shipments of the nature described.

Although the existing item would appear to require that both onion sets and shallots be "in their natural state," most onion sets, by the time they become an article of commerce, have shrunk considerably from drying. They are, however, admitted under the item and cannot be "processed" in any other manner if they are to propagate.

CONCLUSIONS

The Board concludes that there is little reason to alter the existing rates of duty provided for under existing tariff item 8400-1 respecting onion sets. While the Canadian production of onion sets appears to be declining, with imports tending to increase, domestic production still accounts for the bulk of domestic demand. For the period 1971-74 domestic output comprised over 90 per cent of demand;

-
- (1) As discussed in the report respecting green onions, the Council advocates that shallots be classified with green onions under tariff item 8728-1.
 - (2) The Canadian Horticultural Council - submission on Ref. No. 152, p. 4.
 - (3) In any case, goods so trans-shipped would still be subject to duty under the Most-Favoured-Nation Tariff.

this percentage declined to some 83 per cent, however, in the 1974-75 crop year following a rise in imports.

In conformity with its rate recommendations for other commodities, the Board felt it desirable to combine the existing ad valorem rates under tariff item 8400-1 with a specific duty. Based on an average import price of 19½ cents for the 1974 and 1975 years, the Board recommends an M.F.N. specific duty of 3 cents per pound, together with a minimum ad valorem duty of 15 per cent. In view of the 30 p.c. rate at present obtaining under the General schedule, the indicated specific duty would be 6 cents per pound. No seasonal application of the specific duty is proposed as onion sets are storable from one crop year to the next.

Onion sets are often imported in consumer-sized packages. Under the existing tariff, with an ad valorem rate of duty, the weight of the package does not affect the amount of the duty payable. With the introduction of a specific duty, the Board recommends that the weight of the package be included in the weight for duty.

While the Canadian Horticultural Council requested a B.P. rate of 20 p.c. under tariff item 8400-1, the Board does not deem that this change is warranted. It is recommended that free entry under the British Preferential schedule be continued. The Board further recommends the removal of the somewhat anomalous and unnecessary words "in their natural state."

As shallots are more similar in use to green onions and to dry onions than to onion sets, the Board recommends that shallots be classified with the former products and that the term "shallots" be deleted from present tariff item 8400-1.

RECOMMENDATIONS

The Board recommends that the existing schedule in effect in the Customs Tariff respecting tariff item 8400-1 be deleted and that the following schedule be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Onion sets, the weight of the packages to be inclu- ded in the weight for duty .....per pound	Free	3 cts. but not less than 15 p.c.	6 cts. but not less than 30 p.c.

Appendix Table 1

Onion Sets: Estimated Imports by Month, Crop Years,
1966-70 to 1974-75

Month	Average 1966-70	%	Average 1971-74	%	1971-72	1972-73	1973-74	1974-75
- thousand pounds -								
July	5	0.8	*	*	-	-	-	1
Aug.	1	0.2	-	-	-	-	-	-
Sept.	4	0.6	-	-	-	-	-	-
Oct.	8	1.3	-	-	-	-	-	-
Nov.	16	2.5	42	5.9	-	-	41	129
Dec.	83	13.2	37	5.2	40	41	66	-
Jan.	8	1.3	4	0.6	-	-	-	18
Feb.	35	5.5	81	11.4	98	41	76	107
Mar.	61	9.6	145	20.4	59	28	14	480
Apr.	310	49.1	321	45.3	139	64	412	669
May	99	15.7	75	10.6	248	*	4	45
June	<u>1</u>	<u>0.2</u>	<u>4</u>	<u>0.6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>16</u>
Total	631	100.0	709	100.0	584	174	612	1,464

Source: Derived from Statistics Canada data.

PARSLEY

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PARSLEY

Parsley (Petroselinum crispum), a native of Europe and a near relative of celery and parsnips, has been cultivated for thousands of years. The varieties grown in Canada, for their leaves, have fibrous roots and finely divided curled or crinkled leaves; the most popular are Paramount and Moss Curled. It is widely grown by home gardeners.

Leaf parsley can be stored for one or two months under refrigeration, at 0°C. with high humidity. It is consumed in the fresh form as a garnish or as a flavouring in salads. It is used in the production of mixed vegetable juices and, particularly in dehydrated form, as a seasoning for soups and stews.

This vegetable is very rich in Vitamin A with a count of 1,000 international units per 100 grams. Its Vitamin C content, 193 milligrams per 100 grams, is about four times as much as that of an equal weight of fresh oranges.

Another variety, root parsley (P. crispum var. tuberosum) is grown in some parts of the world as a vegetable for its edible fleshy parsnip-like root; it has plain celery-like leaves. The root can be stored, like carrots or parsnips, for several months, at 0°C. This variety is of little or no importance in Canada. Beaked parsley, or chervil (Anthriscus cerefolium), is a parsley-like herb whose leaves are sometimes used fresh in salads. For Canadian customs purposes, however, neither root parsley nor chervil are considered to be parsley and these vegetables are not further considered in this section of the report.

GROWING, HARVESTING AND MARKETING

Young parsley seedlings are tender and, accordingly, they are often started in greenhouses or hotbeds. In other cases, direct outdoor seeding takes place in the early spring and at intervals, thereafter, during the growing season. The crop does best on a rich, fine, moisture-retentive soil similar to that required for carrots. Quality is best when the crop matures during cold weather.

Parsley is produced in Canada beginning in May and possibly as late as December; unloads of fresh domestic produce have been recorded for these months (see Appendix Table 3). The main production and marketing season however extends from July through October.

In harvesting parsley, the leaves are removed by hand when 8 to 12 inches in height; by this method, the plant continues to produce a marketable product for many weeks. The harvested leaves are tied in bunches and a given number of bunches packed in containers for the retail market. The vegetable is then sold at retail by the bunch.

ACREAGE, PRODUCTION AND YIELD

British Columbia appears to be the only producing province in Canada to compile acreage and production data on parsley. In 1973, output in that province totalled 160,000 pounds from 21 acres for an average yield of 7,762 pounds per acre (see Appendix Table 1). Ontario and Quebec are probably the only other major producing areas in Canada and are likely to have an output far in excess of British Columbia production.

The Board has estimated Canadian production as shown below:

Table 1: Parsley: Estimated Canadian Production

<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
		- '000 lb. -			
1,600	1,400	1,600	1,900	2,000	1,725

Source: Derived from Agriculture Canada and Statistics Canada data.

Thus, average Canadian production appears to have increased by a modest 8 per cent between the periods 1966-70 and 1971-74. Based on limited data of acquisitions by processors, production for processing averaged 400,000 pounds, or 23 per cent, of total estimated output (see Table 2). In British Columbia, all recorded parsley output is for the fresh market.

Unloads at the 12 principal markets in Canada suggest that 5 per cent of domestic parsley production is marketed during the shoulder months May, June, November, and December. In other words Canadian production is almost entirely concentrated in the four months July to November. Production in the shoulder months has diminished.

SUPPLY AND DISPOSITION

All parsley grown in Canada is apparently consumed domestically in either fresh or processed form; there are no recorded exports of this vegetable. Canadian consumption of parsley averaged an estimated minimum 5.1 million pounds during the period 1971-74, up 34 per cent over the 1966-70 period (see Table 2). Per capita consumption amounts to approximately 4 ounces. It should be noted that total consumption is understated inasmuch as it excludes the fresh equivalent weight of imported processed parsley, for which there are no data.

Since, according to the Board's estimates, average annual production increased by only 8 per cent, the one-third increase in consumption between the periods 1966-70 and 1971-74 was made up largely by imports. Fresh imports, which averaged 3.4 million pounds per annum

Table 2: Parsley: Supply and Disposition, Canada, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1966-70 to 1971-74</u>
				- '000 lb. -			
<u>Total Production</u> ^(a)	1,600	1,400	1,600	1,900	2,000	1,725	+ 7.8
<u>Total Imports</u>	2,191	2,797	3,126	3,637	3,905	3,366	+53.6
<u>Fresh</u>	2,191	2,797	3,126	3,637	3,905	3,366	+53.6
<u>Processed</u>	..	..	..	..	..	..	..
<u>Total Supply Available</u>	3,791	4,197	4,726	5,537	5,905	5,091	+34.3
<u>Total Exports</u>	..	..	..	..	..	..	..
<u>Total Domestic Disappearance</u>	3,791	4,197	4,726	5,537	5,905	5,091	+34.3
Consumed in processed form ^(a)	369	317	368	449	466	400	+ 8.4
From domestic production ^(a)	369	317	368	449	466	400	+ 8.4
Imported processed	..	..	..	..	..	..	..
Fresh Market Consumption	3,422	3,880	4,358	5,088	5,439	4,691	+37.1
From domestic production	1,231	1,083	1,232	1,451	1,534	1,325	+ 7.6
Imported	2,191	2,797	3,126	3,637	3,905	3,366	+53.6

(a) Tariff Board estimate.

Source: Derived from Statistics Canada and Agriculture Canada data.

during the period 1971-74, were up by 54 per cent over the average of 2.2 million pounds in 1966-70. At the same time, imports as a proportion of total domestic disappearance increased from 58 per cent to 66 per cent. Of greater significance is the increase in the share of total consumption taken by imports during the domestic marketing season, as illustrated in Table 3. It will be noted that during the period 1966-70 imports in the July to December period accounted for 34 per cent of total consumption; in 1971-74 fresh imports increased their share to 44 per cent of total consumption. Furthermore, import penetration rose throughout the production season, and was not confined to the shoulder months (see Appendix Table 4). If the marginal production months of November and December are excluded from the calculations in Table 3, imports as a percentage of on-season consumption rose from 17 per cent during 1966-70 to 25 per cent during 1971-74.

Table 3: Parsley: Production, Fresh Imports and Fresh Consumption, On-Season and Off-Season, 1966-70 and 1971-74

	Average 1966-70	- '000 lb. -	Average 1971-74
<u>Production</u>			
On-season (a)	1,160		1,278
Off-season (b)	71		47
Total	1,231		1,325
<u>Imports</u>			
On-season (a)	599		996
Off-season (b)	1,592		2,370
Total	2,191		3,366
<u>Consumption</u>			
On-season (a)	1,759		2,274
Off-season (b)	1,663		2,417
Total	3,422		4,691
<u>Imports as % of Consumption</u>			
On-season (a)	34.1		43.8
Off-season (b)	95.7		98.1
Total	64.0		71.8

(a) July to December.

(b) January to June.

Source: Appendix Tables 3 and 6.

IMPORTS

Virtually all fresh parsley imports originate in the United States; in some years a small quantity has been imported from Mexico (see Appendix Table 5). Whereas Florida, Texas and New Jersey are the major sources of imports into Canada as a whole, California is almost the sole supplier in the western region (see Appendix Table 7). Imports by month are listed in Appendix Table 6. Imports of parsley were valued at \$530,000 in 1974.

PRICES

The farm value of parsley is available for British Columbia growers only (see Appendix Table 1). In that province, the farm value of fresh market parsley has ranged from a low of 15.2 cents per pound in 1968 to a high of 46.7 cents in 1969 (35.7 cents in 1973).

Weekly wholesale-to-retail prices for imported and domestic parsley are summarized in Table 4. Prices for domestic parsley are available only for Montreal and Vancouver. Price quotations for the imported product become less frequent when domestic parsley is available.

Table 4: Average Wholesale-to-Retail Selling Prices for
Domestic and Imported Parsley in Montreal,
Toronto, Winnipeg, and Vancouver, 1974

	<u>Montreal</u>		<u>Toronto</u>		<u>Winnipeg</u>		<u>Vancouver</u>	
	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>	<u>Dom.</u>	<u>Imp.</u>
	- ¢ per lb. -							
Jan.	-	29.1	-	31.3	-	34.9	-	30.8
Feb.	-	28.7	-	29.1	-	33.0	-	30.8
Mar.	-	27.9	-	29.0	-	31.0	-	30.8
Apr.	-	27.3	-	28.3	-	30.2	-	30.8
May	-	27.9	-	32.4	-	31.5	-	32.5
June	-	40.6	-	40.3	-	35.0	-	40.1
July	29.2	32.9	-	42.0	-	38.0	31.8	43.3
Aug.	27.2	30.1	-	42.0	-	33.7	35.8	-
Sept.	22.8	-	-	-	-	34.3	36.3	-
Oct.	24.9	41.1	-	-	-	35.4	36.3	-
Nov.	-	31.9	-	33.5	-	36.0	36.3	-
Dec.	-	30.2	-	28.1	-	35.0	36.3	33.3

Source: Appendix Table 8.

The information on freight costs available to the Board - although limited in scope - clearly suggests that transportation charges are a very significant factor in the landed costs of imported parsley (see Appendix Table 9). On the Winnipeg market, freight charges in July, 1974, were as much as 45 per cent of the landed cost of 31 cents per pound (82 per cent of the f.o.b. selling price of 17

cents). The Board has calculated the 1974 weighted average price of imports during the main domestic marketing season (July to October) to have been 17.3 cents per pound, f.o.b.

The Board was not able to obtain data on farm values nor on acreage and production of parsley in the United States.

TARIFF CONSIDERATIONS

Fresh parsley is classified under tariff item 8718-1, as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Parsley	Free	10 p.c. or Free	30 p.c. or Free

In any 12 month period ending 31st March, the ad valorem duty shall not be maintained in force in excess of 16 weeks, and the Free rate shall apply whenever the ad valorem duty is not in effect.

Tariff item 8718-1 is bound under GATT.

The current nomenclature and rates of duty have been in effect since January 1, 1968. From 1960 to 1967, the M.F.N. rate of 10 p.c. applied throughout the year. Prior to 1968, the 10 p.c. M.F.N. and 30 p.c. Gen. rates applied throughout the year. The M.F.N. rate had been reduced from 27½ p.c. to 15 p.c. on January 1, 1936 and to 10 p.c. on January 1, 1939.

When imported into the United States from Canada, fresh parsley is classified under item 137.85 at the rate of 25 per cent ad valorem.

The Horticultural Council, in its brief to the Board, proposed that the M.F.N. ad valorem duty be increased to 20 per cent and the period of application to a maximum of 20 weeks. No quantitative data were presented by the Council in either their brief or at the public sittings in February, 1974.

Since its inception in 1968, the seasonal duty has never been applied in the Maritime or central tariff regions (see Appendix Table 10). In the western tariff region, the seasonal duty was applied on two occasions (1973 and 1975) for the full 16-week period. However, based on the data contained in Appendix Table 3 on the monthly distribution of fresh shipments an extension of the period for applying the seasonal duty could be justified inasmuch as the main production season in Canada does run from July 1 to the end of

October, a period of about 18 weeks. At the same time such an extension could be considered to be questionable because the existing seasonal duty has been applied infrequently.

With a seasonal ad valorem duty the level of protection provided growers has not been eroded in the manner experienced by those vegetables dependent on a specific duty for protection.

The proposal of the Horticultural Council to raise the seasonal duty on fresh parsley from 10 per cent to 20 per cent over a 20-week period would, if implemented, double the existing protection. This proposal would raise the cost to the consumer by a potential maximum of \$44,100, or less than 1 cent per family of four. The benefit to growers, at a yield of 6,000 pounds, would be in the order of \$90 per acre.

Although imports of fresh parsley have increased their share of the market during the production period, the present seasonal duty has only rarely been invoked, thus suggesting that imports are not a serious competitive factor in the marketing of Canadian grown parsley. Moreover the high cost of freight relative to the f.o.b. cost of parsley from the United States affords a marked degree of non-tariff protection.

The existence of a duty which has not been applied is not a tax on the consumer. At the same time, it does provide a degree of protection, either potential, or actual, as in the case of the western tariff region in both 1973 and 1975, to Canadian growers.

To be consistent with the proposed rate structure for other vegetables, the Board gave consideration to introducing a specific seasonal duty for parsley, combined with a minimum ad valorem rate. In this connection, a specific rate of $1\frac{3}{4}$ cents per pound would be approximately equal to the present rate of 10 per cent ad valorem based on the average price of imports in 1974 during the Canadian marketing season of July to October.

No proposals were submitted for an additional duty on parsley when imported in pre-packaged form nor for a separate tariff item for processing parsley. It is understood that little, if any, fresh parsley is imported for processing.

CONCLUSIONS

Canadian production of parsley is estimated to have increased slightly in recent years. At the same time, between the periods 1966-70 and 1971-74 consumption has increased by one-third; thus the major portion of this growth in consumption has gone to imports. However, the rise in imports has not resulted in the application of the present seasonal duty except in two instances confined to the western tariff region.

Parsley is, however, a crop well suited to growing conditions in many parts of Canada. The Board is, therefore, reluctant to remove the tariff protection at present afforded to growers and recommends that a seasonal specific duty of $1\frac{3}{4}$ cents per pound be introduced for fresh parsley, together with a minimum rate of 10 per cent ad valorem under both the Most-Favoured-Nation and General Tariff. The B.P. rate would remain Free. Furthermore, the Board concludes that the current maximum period of 16 weeks for application of the seasonal duty is adequate to cover the main Canadian marketing season.

RECOMMENDATIONS

The Board recommends that tariff item 8718-1 be deleted and the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Parsley per pound	Free	$1\frac{3}{4}$ cts. but not less than 10 p.c., or Free	$1\frac{3}{4}$ cts. but not less than 10 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 16 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Appendix Table 1

Parsley: Acreage, Production, Acreage, Farm Value and
Farm Value per Pound, 1968-1974

	<u>Acreage</u>	<u>Production</u> '000 lb.	<u>Farm</u> <u>Value</u> \$	<u>Farm</u> <u>Value</u> ¢/lb.	<u>Average</u> <u>Yield</u> lb.
1968	35	210	31,920	15.2	6,000
1969	13	73	34,119	46.7	5,615
1970	13	77	32,707	42.5	5,923
1971	13	75	31,515	42.0	5,769
1972	18	133	36,980	27.8	7,389
1973	21	163	57,300	35.2	7,762
1974	26	152	57,675	37.9	5,846

Source: B.C. Department of Agriculture.

Parsley: Supply and Disposition Ratios, Canada, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- per cent -					
<u>Per Cent of Domestic Production:</u>						
Consumed in processed form	23.1	22.6	23.0	23.6	23.3	23.2
Sold to domestic fresh market	76.9	77.4	77.0	76.4	76.7	76.8
Exported	-	-	-	-	-	-
<u>Total Imports as Per Cent: of Total domestic disappearance</u>	57.8	66.6	66.1	65.7	66.1	66.1
<u>Per Cent of Fresh Market Consumption:</u>						612
From domestic production	36.0	27.9	28.3	28.5	28.2	28.2
From imports	64.0	72.1	71.7	71.5	71.8	71.8
<u>Per Cent of Total Domestic Disappearance:</u>						
Consumed in processed form	9.7	7.6	7.8	8.1	7.9	7.9
Consumed in fresh form	90.3	92.4	92.2	91.9	92.1	92.1
Production as % of total domestic disappearance	42.2	33.4	33.9	34.3	33.9	33.9

Appendix Table 2

Source: Table 2.

Parsley: Estimated Monthly Distribution of Fresh Shipments^(a)
1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
- thousand pounds -						
Jan.	-	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
May	6	4	-	4	8	2
June	65	43	60	26	66	21
July	288	187	151	195	312	89
Aug.	294	466	271	380	583	630
Sept.	265	268	271	277	256	267
Oct.	212	282	181	289	188	471
Nov.	95	71	151	57	37	40
Dec.	6	5	-	4	2	14
Year	1,231	1,325	1,083	1,232	1,451	1,534

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Parsley: Estimated Monthly Distribution of Fresh Market
Consumption, 1966-1974

Month	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
- per cent - - thousand pounds - - per cent -					
Jan.	100.0	-	454	454	100.0
Feb.	100.0	-	336	336	100.0
Mar.	100.0	-	376	376	100.0
Apr.	100.0	-	385	385	100.0
May	97.8	4	449	453	99.1
June	81.4	43	370	413	89.6
July	29.6	187	213	400	53.3
Aug.	5.8	466	44	510	8.6
Sept.	3.6	268	23	291	7.9
Oct.	22.3	282	122	404	30.2
Nov.	53.9	71	240	311	77.2
Dec.	97.9	5	355	360	98.6
Total	64.0	1,325	3,366	4,691	71.8

Source: Derived from Statistics Canada and Agriculture Canada data.

Parsley: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
		-	thousand pounds	-
1966	1,802	-	-	1,802
1967	2,048	-	-	2,048
1968	1,875	-	-	1,875
1969	2,585	-	-	2,585
1970	2,639	6	-	2,645
Average 1966-70	2,190	1	-	2,191
1971	2,797	-	-	2,797
1972	3,113	11	2	3,126
1973	3,637	-	-	3,637
1974	3,905	-	*	3,905
1975	3,991	*	-	3,991
Average 1971-75	3,489	2	*	3,491

Source: Customs documents, tabulated by Statistics Canada.

Parsley: Imports by Month, 1966-1975

<u>Month</u>	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
					-	thousand pounds	-	
Jan.	289	13.2	475	13.6	411	567	493	557
Feb.	235	10.7	353	10.1	336	373	371	421
Mar.	232	10.6	382	10.9	336	524	366	403
Apr.	282	12.9	380	10.9	365	460	405	363
May	270	12.3	475	13.6	403	465	533	581
June	284	13.0	403	11.5	375	428	358	535
July	121	5.5	227	6.5	189	132	328	286
Aug.	18	0.8	44	1.3	21	39	61	44
Sept.	10	0.4	28	0.8	15	20	36	50
Oct.	61	2.8	112	3.2	101	130	206	72
Nov.	111	5.1	231	6.6	248	200	305	195
Dec.	278	12.7	381	10.9	325	301	442	485
Total	2,191	100.0	3,491	100.0	3,126	3,637	3,905	3,991

Source: Customs documents, tabulated by Statistics Canada.

Parsley: Percentage Distribution of Imports for Fresh Market from
United States, by State of Origin, by Region, 1972-1974

	<u>Calif.</u>	<u>Florida</u>	<u>Texas</u>	<u>N.J.</u>	<u>Others</u>	<u>Total</u>
	- per cent -					
<u>1972</u>						
Maritime Region	33.4	50.0	8.3	8.3	-	100.0
Central Region	3.2	27.0	43.5	25.3	1.0	100.0
Western Region	98.9	-	1.1	-	-	100.0
Canada	13.5	24.2	38.9	22.5	0.9	100.0
<u>1973</u>						
Maritime Region	73.7	13.2	10.5	2.6	-	100.0
Central Region	1.6	24.7	54.7	19.0	*	100.0
Western Region	100.0	-	-	-	-	100.0
Canada	13.9	21.7	47.8	16.6	*	100.0
<u>1974</u>						
Maritime Region	55.6	22.2	4.4	13.4	4.4	100.0
Central Region	0.8	42.0	38.6	18.0	0.6	100.0
Western Region	99.4	-	-	-	0.6	100.0
Canada	12.7	36.9	33.8	15.9	0.7	100.0

Source: Agriculture Canada.

Parsley: Weekly Wholesale to Retail Prices at Montreal, Toronto, Winnipeg and Vancouver, 1974

Week Ending	Montreal			Toronto		Winnipeg		Vancouver	
	Texas ctn., bchd., 5 doz.	Florida	N.J. bu. bskt. - 22 lb.	Que. bu. bskt.	Tex. (c) W/B crt.	Cal. ctn., 1 doz.	Cal. ctn. - 4 lb.	B.C. 1 doz.	
									- cents per pound -
Jan. 4	30.1				28.7	35.0			
11	30.1				32.4	35.0			
18	29.0				32.4	35.0			
25	27.3	29.0			31.5	34.5	30.8		
Feb. 1	30.1	30.7			28.7	34.5	30.8		
8	28.4	28.4			27.5	32.5	30.8		
15	27.9	29.0			30.1	32.5	30.8		
22	27.9	27.3			30.1	32.5	30.8		
Mar. 1	28.5	27.9			29.0	32.5	30.8		
8	28.5	27.9			29.0	32.5	30.8		
15	28.5	27.9			29.0	30.0	30.8		
22	28.5	27.3			29.0	30.0	30.8		
29	27.3	26.7			29.0	30.0	30.8		
Apr. 5	25.6	25.6			28.5(d)	30.0	30.8		
12	27.3	27.9			29.0(d)	31.3	30.8		
19	26.7	27.3			27.9(d)	31.3	30.8		
26	26.7	31.3			27.9	28.3	30.8		
May 3	26.7	27.9			27.9	32.0	30.8		
10		23.9			27.9	30.0	30.8		
17			21.6(a)		27.9	32.5	30.0		
24			27.9(a)		39.2	30.8	32.0		
31			39.2(a)		39.2	32.0	38.8		
June 7			54.5(a)		46.6	34.5	41.3		
14			33.8(a)		40.9	39.5	41.3		
21			33.0(a)		32.9	34.5	41.3		
28			40.9(a)		40.9	31.3	36.3		
July 5			40.4(a)		42.0	38.3	43.3		
12			37.5(a)		42.0	42.0			
19		27.6		30.0(b)	42.0	35.8			
26			31.3	28.3(b)	42.0	35.8			31.8

Parsley: Weekly Wholesale to Retail Prices at Montreal, Toronto, Winnipeg and Vancouver, 1974

Week Ending	Montreal			Toronto		Winnipeg		Vancouver	
	Texas	Florida	N.J.	Que.		Cal.		Cal.	
	ctn., bchd., 5 doz.	bu. bskt.	bu. bskt.	bu. bskt.	W/B crt.	ctn., 1 doz.	ctn., 1 doz.	ctn., 1 doz.	B.C.
			- 22 lb. -					- 4 lb. -	
				-	cents per pound	-			
Aug.			30.1	34.5 (b)	42.0	34.5			35.0
				28.3 (b)		32.5			35.0
16				24.5		33.3			36.3
23				26.7		33.8			36.3
30				22.2		34.5			36.3
Sept.				22.2		34.5			36.3
6				22.2		34.5			36.3
13				23.3		34.5			36.3
20				23.3		33.8			36.3
27				23.3		33.3			36.3
Oct.				23.3		36.3			36.3
4				23.9		36.3			36.3
11			35.2	26.1		36.3			36.3
18			39.2	26.1		35.8			36.3
25			48.9	26.1		35.0			36.3
Nov.			36.4			36.3			36.3
1			32.4			36.3			36.3
8			31.3			36.3			36.3
15		31.3	31.3			36.3			36.3
22		29.0				36.3			36.3
29						35.0			36.3
Dec.		29.5				35.0			36.3
6		27.9				35.0			36.3
13		29.0				35.0			36.3
20		30.1				35.0			36.3
27								33.3	

(a) Carton of 5 dozen equivalent to 22 pounds.
(b) Bunched dozen, 4 pounds.
(c) New Jersey quotations, May 24 to August 2.
(d) Florida quotations.

Appendix Table 9

Imported Parsley: Total Landed Cost; Cost f.o.b.; Freight,
 Brokerage and Other Costs; Cost of Duty -
Winnipeg, Selected Data by Month, 1974

<u>Month of Shipment</u>	<u>Source</u>	<u>Cost f.o.b.</u>	<u>Cost of Freight</u>	<u>Duty Paid</u>	<u>Total Landed Cost</u>
July	Calif.	20.5	13.4	-	33.8
	"	17.0	13.5	-	30.5
	"	17.0	14.0	-	31.0
	"	17.0	12.4	-	29.4

Source: Tariff Board Survey.

Parsley: Dates of Application and Removal of the Seasonal,
Specific Duty, by Region, 1968-1975

Year (a)	Maritime Provinces			(b) Central Canada			(c) Western Canada		
	<u>Application</u>	<u>Removal</u>	<u>Days in Effect</u>	<u>Application</u>	<u>Removal</u>	<u>Days in Effect</u>	<u>Application</u>	<u>Removal</u>	<u>Days in Effect</u>
1968	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-
1971	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	July 24	Nov. 13	112
1974	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	July 22	Nov. 10	111

- (a) Government fiscal year commencing April 1st, ending March 31st following year.
 (b) Includes Quebec and Ontario east of Thunder Bay, Ontario.
 (c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Parsley: Dutiable and Non-Dutiable Imports, 1966-1975

<u>Year</u>	<u>Total</u> <u>'000 lb.</u>	<u>Non-</u> <u>Dutiable</u> <u>'000 lb.</u>	<u>%</u>	<u>Dutiable</u> <u>'000 lb.</u>	<u>%</u>	Price f.o.b. <u>Dutiable</u> <u>¢/lb.</u>
1966	1,802	1	*	1,801	100.0	11.1
1967	2,048	6	0.3	2,042	99.7	11.1
1968	1,875	1,714	91.4	161	8.6	12.2
1969	2,585	2,585	100.0	-	-	-
1970	2,645	2,645	100.0	*	*	16.8
Average 1966-70	2,191	1,390	63.4	801	36.6	11.1
1971	2,797	2,794	99.9	3	0.1	14.4
1972	3,126	3,090	98.8	36	1.2	14.1
1973	3,637	3,581	98.5	56	1.5	11.7
1974	3,905	3,897	99.8	8	0.2	14.9
1975	3,991	3,867	96.9	124	3.1	12.3
Average 1971-75	3,491	3,446	98.7	45	1.3	12.6

Source: Customs documents, tabulated by Statistics Canada.

PARSNIPS

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PARSNIPS

The parsnip (Pastinaca sativa) is native to the Mediterranean area and the Caucasus in Asia. Wild parsnips were used by the ancient Romans for both food and medicinal purposes.

The parsnip is a member of the carrot family, shaped much like a carrot but creamy in colour. It is grown for its thick fleshy edible root. Although a biennial, the parsnip is grown as an annual. A long growing season is required for the roots to reach marketable size. The vegetable is fairly tolerant of frost.

Parsnips require a deep rich soil for proper root development. If the soil is too shallow, the roots become crooked and branched. Heavy soils often produce poor stands because of heavy surface crusting, which prevents the emergence of seedlings. The roots grow well in a deep loam soil; however, the ideal for optimum root development is organic soil. About one-half of domestic parsnip production occurs on organic or muck soils.

Parsnips are fairly high in Vitamins A and C, and extremely high in calcium. Parsnips have a high caloric content relative to other vegetables.

While being a root crop very similar in nature to carrots, parsnips are, among Canada's vegetables, a minor crop; annual parsnip production in 1971-74 averaged only 10.5 million pounds as compared, for example, to annual carrot production at 348.1 million pounds. Although a small quantity of parsnips are used for processing, for the purposes of this report the entire supply of this vegetable is considered as being available for fresh market consumption. In per capita terms, such consumption has tended to decline in recent years.

GROWING AND HARVESTING

The recent introduction of precision seeding, and mechanical harvesting, has reduced costs and simplified the growing of this crop. Parsnips grown on organic soils usually do not require thinning because, when overcrowding occurs, the physical nature of such soil permits the roots to shift somewhat to areas of lower resistance. Weed control in parsnips is easily carried out with herbicides. The roots grow to about 9 to 12 inches in length, at which time they are harvested with a carrot harvester. After digging, the roots are topped and stored until marketed. In Canada, parsnips are seeded in the early spring and are harvested in the autumn, mainly in September, October, and November. This vegetable requires a long growing season and a disadvantage to its cultivation is that its growing period prohibits an earlier crop such as spinach, lettuce or cabbage on the same acreage. Cooler fall temperatures (5°C or lower) are desirable to improve the quality of parsnips by changing the starch to sugar. After being harvested, the parsnips are placed in refrigerated storage at 0°C and a relatively high level of humidity. They can be kept very satisfactorily for six to eight months under refrigeration either at the farm or in commercial facilities.

ACREAGE, PRODUCTION AND FARM VALUE

An analysis of recent changes in the production of parsnips in Canada is rendered somewhat difficult by the incompleteness of farm data with particular reference to Quebec and the Prairie Provinces. In the case of Quebec, production estimates having a reasonable degree of reliability can be, and have been, made on the basis of unload data; there are, however, no data pertaining to the acreage, yield and farm value of parsnips grown in this province. Probably reflecting the insignificance of parsnip production in Saskatchewan and Alberta, there are no data on the growing of parsnips in these two provinces. Pertinent figures for Manitoba are likewise unavailable for the period 1961-65. These various deficiencies limit what can be said about parsnip production in the individual provinces and also somewhat restrict the precision of trend estimates at the national level.

On the basis of the data reported, Canadian parsnip production, which averaged at least 14.7 million pounds annually in 1961-65, declined to 12.2 million pounds in 1966-70 and further declined to 10.5 million pounds in 1971-74 (see Table 1). A comparison of the 1961-65 average to that in 1971-74 indicates a production decrease of about 29 per cent. In more recent years, it is noted that production decreased notably in 1974 as the result of significantly reduced harvests in Ontario and Quebec.

The province of Ontario is the most important producer of this vegetable. However, that province's share of total production fell markedly, from 76 per cent in 1961-65 to 56 per cent in 1971-74. Quebec and the Maritimes region in 1971-74 accounted for about 35 per cent of production with only minor production occurring in either Manitoba or in British Columbia. The decline in domestic output was due largely to a drop in production and acreage in Ontario. The acreage decline in Ontario has probably taken place because this province's muck soil area is limited and farmers have been shifting into other crops (e.g., carrots); the long growing season required for parsnips has also probably been a factor in its displacement by other vegetable crops.

The area of land reported in connection with parsnip production (excluding Quebec) averaged 530 acres in 1971-74 as compared with 684 acres in 1961-65 and 510 acres in 1966-70. These figures, together with evidence of stable production volumes in Quebec, suggest that total parsnip acreage in Canada has probably not changed significantly during the past decade.

The overall average yield for parsnips, excluding Quebec, has evidently declined; it was 18,500 pounds per acre in 1961-65 as against 14,923 pounds per acre in 1971-74, a decline of 19 per cent. In spite of a lessening interest in this crop in Ontario, the average yield in that province, 20,359 pounds per acre in 1971-74, was about three times higher than that in the Maritimes and also greatly exceeded the yields reported for Manitoba and British Columbia.

Table 1: Parsnips: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Maritimes	114	124	200	160	150	150	165	+ 44.7
Quebec	..	..	..	..	..	..	..	..
Ontario	532	364	390	280	290	200	290	- 45.5
Manitoba	..	..	60	40	50	50	50	..
B.C.	38	22	20	30	30	20	25	- 34.2
Canada (b)	684	510	670	510	520	420	530	- 22.5 (c)
- Production, '000 lb. -								
Maritimes	992	1,478	1,455	1,087	973	1,056	1,143	+ 15.2
Quebec (a)	2,015	2,688	2,451	2,631	3,262	1,887	2,558	+ 26.9
Ontario	11,204	7,750	8,533	5,573	5,778	3,730	5,904	- 47.3
Manitoba	..	..	870	540	400	600	602	..
B.C.	459	241	217	380	232	212	260	- 43.4
Canada (b)	14,670	12,158	13,526	10,211	10,645	7,485	10,467	- 28.7 (c)
- Average Yield, lb. -								
Maritimes	8,702	11,919	7,275	6,794	6,487	7,040	6,927	- 20.4
Quebec	..	..	..	..	..	..	..	..
Ontario	21,060	21,291	21,879	19,904	19,924	18,650	20,359	- 3.3
Manitoba	..	..	14,500	13,500	8,000	12,000	12,040	..
B.C.	12,079	10,955	10,850	12,667	7,733	10,600	10,400	- 13.9
Canada (b)	18,500	18,569	16,530	14,863	14,198	13,329	14,923	- 19.3
- Farm Value, \$000 -								
Maritimes	60	122	155	123	125	147	138	+130.0
Quebec	..	..	..	..	..	..	..	..
Ontario	409	311	334	335	285	274	307	- 24.9
Manitoba	..	..	87	64	48	84	71	..
B.C.	26	22	20	33	28	38	30	+ 15.4
Canada (b)	495	455	596	555	486	543	545	+ 10.1 (c)
- Farm Value, ¢ per lb. -								
Maritimes	6.0	8.3	10.7	11.3	12.8	13.9	12.1	+101.7
Quebec	..	..	..	..	..	..	..	..
Ontario	3.7	4.0	3.9	6.0	4.9	7.3	5.2	+ 40.5
Manitoba	..	..	10.0	11.9	12.0	14.0	11.8	..
B.C.	5.7	9.1	9.2	8.7	12.1	17.9	11.5	+101.8
Canada (b)	3.9	4.8	5.4	7.3	6.6	9.7	6.9	+ 76.9

(a) Quebec production as estimated from unload data.

(b) Excludes Quebec.

(c) May be overstated due to partial data for Prairie region.

Source: Statistics Canada and Agriculture Canada.

The average return at the farm level for parsnips was 6.9 cents per pound in 1971-74 compared to 3.9 cents and 4.8 cents in 1961-65 and 1966-70, respectively. Farm prices in Ontario, where the bulk of production takes place, have tended to be about one-half of the per pound prices in the other regions for which price data are reported. At the national level, average farm value per acre has also risen steadily, from \$724 per acre in 1961-65 to \$1,028 in 1971-74.

Notwithstanding the substantial per pound price increases, the drop in production resulted in a total farm value for parsnips averaging \$545,000 in 1971-74, or only a slight increase over the total farm value recorded in both 1961-65 and 1966-70. Allowing for the incompleteness of data with particular reference to Quebec, a more accurate total farm value for Canada during 1971-74 would be about \$725,000.

SUPPLY AND DISPOSITION

Parsnips are grown almost entirely for fresh market sale as this vegetable is not used, to any important extent, for processed products.⁽¹⁾ The domestic disappearance of parsnips, 12.0 million pounds in 1971-74, is thus equivalent to its fresh market consumption (see Table 2). Parsnips are declining substantially in popularity as a fresh table vegetable; fresh market consumption decreased from 15.5 million pounds in 1961-65 to 13.2 million pounds in 1966-70 and to 12.0 million pounds in 1971-74. On a per capita basis, annual consumption in 1971-74 amounted to only 0.55 pounds, down from 0.82 pounds in 1961-65.

Virtually all of Canadian parsnip production is sold in the domestic fresh market; a minor proportion of Canadian output has however been exported regularly to the United States. In 1971-74, annual exports represented less than 2 per cent of domestic output.

While the Canadian demand for this vegetable is met largely from domestic supply, production has fallen significantly and imports have risen. In 1971-74, imports constituted 14.2 per cent of fresh market sales; this compares to 6.3 per cent in 1961-65.⁽²⁾ Parsnip imports approximately doubled between 1961-65 and 1971-74 reaching a high of 2.4 million pounds in 1974-75, a year when Ontario production dropped markedly. The trade deficit in this vegetable was 1.5 million pounds in 1971-74 having increased from a deficit of .8 million pounds in 1961-65.

Parsnips are a storable vegetable and a substantial volume of fresh market sales take place from storage in the months subsequent to the actual harvesting period. While storage data are not recorded for parsnips, in 1971-74, 46 per cent of annual production was evidently marketed from storage in the six months from January to June, inclusive

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- (1) According to confidential data received by the Board, only one company in Canada uses parsnips for a processed food product and such usage was of minor quantity.
 - (2) Other selected supply and disposition ratios are presented in Appendix Table 1.

Table 2: Parsnips: Supply and Disposition, Canada, Crop Years, 1961-65 to 1974-75

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
				- '000 lb.	-			
<u>Total Production</u>	14,670	12,158	13,526	10,211	10,645	7,485	10,467	- 28.7
<u>Total Imports, Fresh</u>	978	1,346	1,631	1,486	1,298	2,423	1,709	+ 74.7
<u>Total Supply Available</u>	15,648	13,504	15,157	11,697	11,943	9,908	12,176	- 22.2
<u>Total Exports, Fresh</u>	194	259	418	44	160	70	173	- 10.8
<u>Total Domestic Disappearance</u>	15,454	13,245	14,739	11,653	11,783	9,838	12,003	- 22.3
<u>From domestic production</u>	14,476	11,899	13,108	10,167	10,485	7,415	10,294	- 28.9
Imported	978	1,346	1,631	1,486	1,298	2,423	1,709	+ 74.7

Source: Derived from Statistics and Agriculture Canada data.

(see Appendix Table 2). This figure may understate sales from storage since some marketing of stored parsnips probably also occurs in December. Shipments to the domestic fresh market normally peak in October, November, and December and decline steadily in subsequent months. Although there is some marketing of domestically grown parsnips in June and July, such shipments tend to be quantitatively insignificant, amounting to only some 2 per cent of production in 1971-74.

Parsnip imports are also noticeably seasonal with imports being of relatively small volume during the domestic growing season but becoming of increasing importance subsequently (see Appendix Table 4). Fifteen per cent of parsnip imports were entered in September, October, and November, Canada's principal harvesting months in 1971-74. In contrast, 47 per cent of imports were entered in the four-month period from March to June, inclusive. Parsnips are imported largely from California and are believed to be mainly field-marketed from spring crops in that state. Such imports, being of fresh produce, probably enjoy a quality advantage over domestic parsnips which have been stored.

Estimates of fresh market consumption by month show that in 1971-74 imported parsnips met about two-thirds of domestic demand in June and July (see Appendix Table 3). Imports also accounted for an important share of consumption in August of 30 per cent and in May of 45 per cent. Import competition was evidently of only minor importance in the September-January period, accounting in 1971-74 for 7 per cent of domestic consumption.

Domestic parsnips accounted for 85.8 per cent of the market in 1971-74, compared with 93.7 per cent in 1961-65. The data given in Appendix Table 3 indicate that import penetration has been greatest in April, May, and June, i.e., at the end of the domestic marketing season, and in August, which is the first month of the harvesting season.

There is very little interprovincial or interregional trade in parsnips, with local demand being met very largely by local production. Ontario producers sometimes market parsnips on the Prairie market; however, according to 1974 unload information, only a very small share of Ontario production (about 1 per cent) is thus marketed.

IMPORTS

Parsnip imports since 1966 have been entered only from the United States. As indicated in Appendix Table 6, California accounts for almost all of such imports (93 per cent in 1972-74). Imports into the Atlantic or central regions have been relatively minor with the majority of imports being entered into the western region (see Appendix Table 5). Imports into this latter region accounted for 87 per cent of all parsnips entered in 1971-74, imports into British Columbia being particularly significant. In British Columbia, parsnip production in 1971-74 amounted to only one-quarter of imported supply, apparently little or nothing being received by way of interregional shipments. In that province imports evidently supply the bulk of demand.

EXPORTS

In most years, parsnips are exported only to markets in the United States (see Appendix Table 7). Data on exports by province are not available, but most exports are believed to be from Ontario.

PRICES

The average farm level price for parsnips was 6.9 cents per pound in 1971-74 and has increased steadily since 1961-65. Farm prices in Ontario have, also, been conspicuously less than those in other regions (see Table 1).

Wholesale to retail prices in 1974 are presented in Appendix Table 8 for five major domestic markets. Parsnips are mainly marketed in 50-pound bags or retail-packaged in 1- or 2-pound "cellos," this latter form being the most important in terms of volume of marketings. In 1974, the per pound price for domestically grown parsnips in retail cello packages was approximately twice that for the bagged product. Prices of the domestically grown parsnips, in cellos, are usually considerably higher in Winnipeg (22-31 cents) than in Toronto (11-20 cents) and in Montreal (normally 9-19 cents). This regional price variance seems to be essentially explained by the adequacy of local production as there is little interprovincial movement for this vegetable and prices are notably lower in the central region which accounts for the bulk of production.

From the data given in Appendix Table 8, direct price comparisons between imported and domestically grown parsnips in the same market can only be made for Winnipeg where import prices were in 1974, on average, only slightly above those for the domestic product. For imported cello packs, the per pound price in Winnipeg was in the range of 27-34 cents compared with 27-36 cents in Vancouver and 37-50 cents in Halifax. These data, though incomplete, suggest that imported parsnips do not compete in the Canadian market on the basis of lower prices.

The Board compiled import cost data respecting the landed cost of parsnips per pound, showing the relative importance of freight charges to total landed costs. Such data are provided in Appendix Table 9 for parsnips entered into Winnipeg and Vancouver and are particularly representative inasmuch as the bulk of Canadian imports are entered into the Prairies or into British Columbia. Freight charges from California to Vancouver in 1971-74 ranged between 2 to 3 cents per pound either for bulk or institutional size packs (usually sacks of 45 pounds) or for retail-packed cellos. Freight charges constitute 21-25 per cent of landed cost for bulk or institutional-sized imports; such costs constitute 11-13 per cent of landed cost for retail-packed cellos, the f.o.b. cost of such retail packs being considerably higher. Freight charges from California to Winnipeg appear to be much higher, at 5-6 cents per pound, constituting 18-24 per cent of total landed cost.

Although parsnips are entered free of duty, it may be concluded from the above that freight costs themselves comprise an important degree of protection for domestic parsnip growers.

TARIFF CONSIDERATIONS

Fresh parsnips are presently classified under tariff item 8719-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Parsnips	Free	Free	Free

The present duty-free entry applicable to parsnips has been in effect since June 4, 1969. Rates of duty applicable in various periods are given below:

Table 4: Parsnips: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1935	Free	27½ p.c.	30 p.c. (a)
1936-38	Free	15 p.c.	30 p.c.
1939 to April 9, 1959	Free	10 p.c.	30 p.c.
April 10, 1959-67 (b)	Free	1 ct. (36 weeks) (c)	1 ct. (36 weeks)
		10 p.c.	10 p.c.
Jan. 1, 1968 to Dec. 31, 1968	Free	0.8 ct. (36 weeks) 8 p.c.	0.8 ct. (36 weeks) 8 p.c.
Jan. 1, 1969 to June 3, 1969	Free	0.6 ct. (36 weeks) 6 p.c.	0.6 ct. (36 weeks) 6 p.c.
June 4, 1969	Free	Free	Free

(a) Imports from the United States were subject to the General Tariff until December 31, 1935.

(b) Prior to April 10, 1959 entered as "fresh vegetables, n.o.p."

(c) Packages weighing five pounds or less made subject to additional duty of 5 p.c. M.F.N., 10 p.c. Gen. This provision was discontinued effective January 1, 1968.

A specific duty on parsnips was first introduced in 1959, at that time being 1 cent per pound with a permitted period of application of up to 36 weeks. Specific duties were reduced and subsequently removed as a result of GATT negotiations. Present tariff item 8719-1, respecting parsnips, is bound under GATT.

In the U.S. tariff, parsnips are imported under item 137.80 (Part 8 - Vegetables; Subpart A - Vegetables, Fresh, Chilled, or Frozen). The rate of duty provided respecting imports from Canada is 12.5% ad valorem.

The Canadian Horticultural Council proposed that a duty be re-instated on parsnips, advocating an ad valorem rate of 15 per cent for a maximum of 36 weeks, with free entry for the balance of the year, under all three tariffs. It also advocated that parsnips be included in those vegetables subject to additional packaging duties (at rates of

10 p.c. under all three tariffs). The Horticultural Council contended that "Parsnips are becoming an increasingly important root crop and are being sold in consumer-sized packages to an increasing extent."⁽¹⁾

Canadian Food Processors Association made no proposal respecting fresh parsnips. Representations made by the National Farmers Union, the Canadian Importers Association Inc. and the Consumers' Association of Canada respecting vegetables generally would also apply to parsnips.

CONCLUSIONS

While The Canadian Horticultural Council proposes that a tariff on parsnips be re-instated, at 15 p.c., the Board does not consider there is sufficient justification for any change to the present provision for duty-free entry for this vegetable under tariff item 8719-1.

The Board concludes that domestic parsnip growers are evidently sufficiently competitive vis-à-vis foreign producers to supply most of the domestic demand; in 1971-74, domestically grown parsnips accounted for about 86 per cent of Canadian consumption. The share of the domestic market accruing to imports is largely confined to western Canada due to a limited availability of domestic parsnips in certain months. While domestic growers have lost some part of the Canadian market for this vegetable in recent years, there is little import competition to domestic growers during the main growing and marketing season.

With respect to the proposal of The Canadian Horticultural Council that parsnips be subject to additional duty if entered in packages of 5 pounds or less, it is noted that such packaging duty did apply in a prior period, such additional duty formerly being imposed when imports were subject to a seasonal specific duty. The Board's considerations concerning the issue of pre-packaged fresh vegetables is presented elsewhere in this report. In accordance with its conclusions on this issue, the Board recommends that parsnips be made subject to additional packaging duties of 5 p.c. M.F.N. and 10 p.c. Gen., for a period not to exceed 36 weeks in any 12-month period ending March 31.

(1) Brief of The Canadian Horticultural Council to Tariff Board respecting Reference 152, November 20, 1973, p. 35.

RECOMMENDATIONS

The Board recommends that present tariff item 8719-1 be deleted from Schedule "A" of the Customs Tariff and that the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Parsnips	Free	Free	Free

When imported in packages five pounds or less, each, see additional duty following item 8748-1, which may apply.

Parsnips: Supply and Disposition Ratios, Canada, Crop Years, 1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
	- per cent -						
Per Cent of Domestic Production:							
Sold to Domestic Fresh Market	98.7	97.9	96.9	99.6	98.5	99.1	98.3
Exported	1.3	2.1	3.1	0.4	1.5	0.9	1.7
Fresh Imports as Per Cent:							
of Fresh Market Availability	6.3	10.0	10.8	12.7	10.9	24.5	14.0
of Fresh Exports	504.1	519.7	390.2	3377.3	811.3	3461.4	987.9
Per Cent of Fresh Market Consumption:							633
From Domestic Production	93.7	89.8	88.9	87.2	89.0	75.4	85.8
From Imports	6.3	10.2	11.1	12.8	11.0	24.6	14.2

Source: Table 2.

Appendix Table 2

Parsnips: Estimated Monthly Distribution of Fresh Shipments,^(a)
Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	Average 1971-74	1971-72	1972-73	1973-74	1974-75
- thousand pounds -						
July	57	41	-	7	82	74
Aug.	453	146	393	51	87	52
Sept.	1,107	874	1,599	825	583	489
Oct.	1,560	1,296	1,350	1,325	1,515	994
Nov.	1,660	1,605	1,835	1,780	1,463	1,342
Dec.	1,318	1,593	2,477	1,291	1,491	1,112
Jan.	1,318	1,277	1,101	1,391	1,428	1,186
Feb.	1,404	1,187	1,324	1,088	1,299	1,038
Mar.	1,064	945	1,376	940	735	727
Apr.	951	654	865	756	744	252
May	794	515	669	484	757	148
June	213	163	118	229	304	-
Total	11,899	10,294	13,108	10,167	10,485	7,415

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 3

Parsnips: Estimated Monthly Distribution of Fresh Market
Consumption, Crop Years, 1961-65 to 1971-74

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
- per cent -			- thousand pounds -		per cent	
July	77.3	70.2	41	127	168	75.6
Aug.	9.0	14.7	146	120	266	45.1
Sept.	2.4	6.0	874	79	953	8.3
Oct.	2.3	5.6	1,296	105	1,401	7.5
Nov.	2.8	2.8	1,605	80	1,685	4.7
Dec.	3.9	5.8	1,593	107	1,700	6.3
Jan.	4.9	6.6	1,277	129	1,406	9.2
Feb.	7.2	9.9	1,187	156	1,343	11.6
Mar.	6.5	12.2	945	164	1,109	14.8
Apr.	9.0	13.8	654	178	832	21.4
May	12.5	18.0	515	216	731	29.5
June	33.5	36.4	163	248	411	60.3
Total	6.3	10.2	10,294	1,709	12,003	14.2

Source: Derived from Statistics Canada and Agriculture Canada data.

Parsnips: Imports by Month, Crop Years, 1966-70 to 1974-75

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-74</u>	<u>%</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
- thousand pounds -								
July	134	10.0	127	7.4	190	111	78	129
Aug.	78	5.8	120	7.0	164	124	85	108
Sept.	71	5.3	79	4.6	58	76	72	112
Oct.	93	6.9	105	6.1	69	130	92	129
Nov.	47	3.5	80	4.7	65	68	78	109
Dec.	81	6.0	107	6.3	144	88	62	132
Jan.	93	6.9	129	7.5	139	140	88	148
Feb.	154	11.4	156	9.1	203	121	161	137
Mar.	148	11.0	164	9.6	84	169	141	262
Apr.	152	11.3	178	10.4	142	158	110	302
May	174	12.9	216	12.6	185	155	132	393
June	122	9.1	248	14.5	187	145	199	460
Total	1,346	100.0	1,709	100.0	1,631	1,486	1,298	2,423

Source: Statistics Canada.

Appendix Table 5Parsnips: Imports^(a) by Province and Region, 1966-1975

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	95	85	65	59	72	299
Nfld.	8	1	2	1	-	1
P.E.I.	3	2	1	-	1	2
N.S.	69	43	31	19	33	140
N.B.	16	40	31	39	38	155
Central Region	143	212	243	38	10	626
Que.	134	113	221	36	-	487
Ont.	9	99	22	1	10	139
Western Region	1,046	1,464	1,230	1,260	1,468	1,555
Man.	65	106	30	54	76	97
Sask.	33	79	35	47	59	112
Alta.	203	248	224	289	396	477
B.C.	745	1,030	940	870	937	869
Canada	1,285	1,761	1,537	1,357	1,550	2,479

^(a) All imports are from the United States.

Source: Statistics Canada.

Parsnips: Percentage Distribution of Fresh Market Imports from
United States, by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Florida</u>	<u>Others</u>	<u>Total</u>
	- per cent -			
<u>1972</u>				
Maritime Region	56.2	-	43.8	100.0
Central Region	88.3	3.9	7.8	100.0
Western Region	90.6	-	9.4	100.0
Canada	90.0	0.4	9.6	100.0
<u>1973</u>				
Maritime Region	72.2	5.6	22.2	100.0
Central Region	66.7	-	33.3	100.0
Western Region	90.7	-	9.3	100.0
Canada	90.4	0.1	9.5	100.0
<u>1974</u>				
Maritime Region	100.0	-	-	100.0
Central Region	-	-	-	-
Western Region	99.9	-	0.1	100.0
Canada	99.9	-	0.1	100.0

Source: Agriculture Canada.

Appendix Table 7

Parsnips: Exports by Country of Destination, 1966-1975^(a)

<u>Year</u>	<u>United States</u>	<u>Others</u>	<u>Total</u>
	- thousand pounds -		
1966	407	-	407
1967	61	-	61
1968	331	-	331
1969	382	5	387
1970	111	-	111
Average 1966-70	258	1	259
1971	418	-	418
1972	44	-	44
1973	160	-	160
1974	70	-	70
Average 1971-74	173	-	173

(a) Based on an August 1 to June 30 period, each year, as reported by Agriculture Canada.

Source: Agriculture Canada.

Parsnips: Weekly Wholesale to Retail Prices at Halifax, Montreal, Toronto, Winnipeg and Vancouver, 1974

Week Ending	Halifax		Montreal		Toronto		Winnipeg			Vancouver	
	Cal.	N.S.	Que.	cello 12x2 lb.	cello 12x2 lb.	Bu.hpr. 45 lb.	Cal M/C 12x1 lb.	M/C 12x1 lb.	Man. bag 50 lb.	Ont. bag 50 lb.	Cal. cello 12x1 lb.
- cents per pound -											
Jan.	4	18.0	12.0	13.3	7.2	23.6					31.3
	11	18.0	12.0	13.0	7.2	22.1					26.9
	18	18.0	11.5	13.5	7.0	22.1					29.6
	25	18.0	11.0	14.1	7.0	24.4					29.8
Feb.	1	18.0	11.0	14.1	7.0	25.3					29.8
	8	18.0	11.0	15.1	8.1	22.9					29.6
	15	18.0	11.0	14.1	8.1	24.2	27.1				29.6
	22	18.0	9.9	14.1	8.1	25.3	27.1				29.6
Mar.	1	18.0	9.9	14.1	8.1	24.2	27.1				27.9
	8	18.0	9.9	14.1	8.1	24.6	27.1				30.4
	15	18.0	10.4	14.1	8.1	24.6	27.1				30.3
	22	18.0	10.4	13.0	7.5	24.2	27.1				30.3
Apr.	29	18.0	10.8	14.1	7.0	25.3					30.3
	5	18.0	9.9	14.1	7.2	23.3					30.3
	12	18.0	9.9	14.1	7.2	22.9					30.7
	19	18.0	9.9	14.1	7.0	25.3					30.7
May	26	18.0	9.9	14.1	7.0	24.2					30.8
	3	18.0	9.9	12.5	7.0	24.0					30.8
	10	18.0	9.9	11.0	7.0	24.0					31.3
	17	18.0	9.9	11.0	7.0	22.9					31.3
June	24	18.0	11.0	11.5	7.2	24.2					31.3
	31	18.0	11.5	11.0		24.2					31.3
	7	18.0	12.0	11.0	7.0						31.5
	14	18.0	12.0	11.0	7.0						31.3
	21	18.0	13.5				30.3				31.3
	28		13.5				30.3				31.3

Appendix Table 8 (concl.)

Parsnips: Weekly Wholesale to Retail Prices at Halifax, Montreal, Toronto, Winnipeg and Vancouver, 1974

Week Ending	Halifax		Montreal		Toronto		Winnipeg			Vancouver	
	Cal.	N.S.	Que.	cello	cello	Bu.hpr.	Cal	M/C	Man.	Ont.	Cal.
	cello	bag	cello	12x2 lb.	12x2 lb.	45 lb.	M/C	12x1 lb.	bag	bag	cello
	18x1 lb.	50 lb.						50 lb.			12x1 lb.
- cents per pound -											
July 5			13.0				30.3				31.3
12			13.0				30.3				31.3
19							30.3				31.3
26							30.3				32.9
Aug. 2							30.4				32.9
9							30.8				32.9
16			16.2				31.5				33.2
23			16.2		20.3		34.0				33.8
30			16.2		20.3		32.9				33.8
Sept. 6	50.0		16.2		20.3		32.9				33.8
13	50.0		16.2		20.3		32.1				33.8
20	48.9				19.8		31.5				33.8
27	48.9				19.3		31.5				34.0
Oct. 4	48.9				19.3		31.3	30.8			34.0
11	37.5				19.3		29.6	30.8			34.0
18		20.0	17.2		19.3	9.2	29.6	30.4			34.0
25		18.0	17.2		19.3	9.2	31.1	30.3			34.0
Nov. 1		18.0	17.2		18.8	8.6	29.2	30.3	18.0		35.8
8		18.0	17.2		18.3	8.1	29.2	29.2	15.4		
15		18.0	17.2		18.3	8.1		30.8	13.8		33.8
22		18.0	17.7		18.3	7.8		30.3	13.8		34.4
29		18.0	17.7		18.3	7.8		30.3	14.0		36.1
Dec. 6		18.0	17.7		18.3	7.5		29.2	12.2		34.4
13		20.0	17.2		19.3	8.1		28.8	12.9		35.0
20		20.0	19.3		19.3	8.1		28.2	14.0		35.0
27		20.0	19.0		19.3	8.1		28.2	14.0		34.4

Source: Agriculture Canada.

Imported United States Parsnips: Total Landed Cost; Cost f.o.b.; Freight,
Brokerage and Other Costs; Cost of Duty;
Winnipeg and Vancouver; Selected Data
by Month, 1974

Month of Shipment	Winnipeg (a)					Vancouver (a)					Vancouver (b)					
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	
						-	-	cents per pound	-							
January	-	-	-	-	-	Calif.	17.4	2.5	-	19.9	Calif.	8.6	2.3	-	-	10.9
"	-	-	-	-	-	"	19.5	2.5	-	22.0	-	-	-	-	-	-
February	-	-	-	-	-	Calif.	19.5	2.4	-	21.9	Calif.	7.2(c)	2.1	-	-	9.8
"	-	-	-	-	-	"	17.4	2.4	-	19.8	-	-	-	-	-	-
"	-	-	-	-	-	"	18.4	2.5	-	20.9	-	-	-	-	-	-
March	-	-	-	-	-	Calif.	18.4	2.5	-	20.9	Calif.	7.7(c)	2.1	-	-	9.8
April	-	-	-	-	-	Calif.	19.5	2.5	-	22.0	-	-	-	-	-	-
May	-	-	-	-	-	Calif.	18.8	2.5	-	21.3	Calif.	7.8	2.6	-	-	10.4
June	-	-	-	-	-	Calif.	19.3	2.5	-	21.8	Calif.	8.3	2.7	-	-	11.0
"	-	-	-	-	-	"	19.3	2.6	-	21.9	"	8.6	2.8	-	-	11.4
July	Calif.	19.5	6.1	-	25.6	Calif.	19.5	2.7	-	22.2	Calif.	8.6	2.8	-	-	11.4
"	"	21.6	6.1	-	27.7	"	21.6	2.7	-	24.3	-	-	-	-	-	-
August	Calif.	21.6	5.9	-	27.5	Calif.	21.6	2.7	-	24.3	Calif.	8.6	2.8	-	-	11.4
"	"	22.1	5.0	-	27.1	-	-	-	-	-	-	-	-	-	-	-
"	"	21.6	5.7	-	27.3	-	-	-	-	-	-	-	-	-	-	-
September	Calif.	21.6	5.6	-	27.2	Calif.	21.6	2.7	-	24.3	Calif.	8.6	2.8	-	-	11.4
October	-	-	-	-	-	Calif.	21.6	2.7	-	24.3	-	-	-	-	-	-
November	-	-	-	-	-	Calif.	21.6	2.7	-	24.3	Calif.	8.6	2.8	-	-	11.4
December	-	-	-	-	-	Calif.	21.6	2.7	-	24.3	Calif.	8.6	2.8	-	-	11.4

(a) 48-lb. cello.

(b) 45-lb. sack.

(c) 50-lb. sack.

Source: Tariff Board Survey.

GREEN PEAS

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GREEN PEAS

The pea appears to have originated in Middle Asia and, in prehistoric times, was grown in Europe for its dry seed. Today these are still used in soups and in processing operations such as separating out vegetable protein for nutritional purposes. This report, however, is only concerned with the green garden pea developed in France and England during the seventeenth century.

Green peas are purchased by the housewife in the pod or already processed (i.e., frozen or canned). Almost all green peas, other than those home grown, are processed in one form or another before they reach the kitchen. One factor influencing the market shift to processed shelled peas has been the modern housewife's reluctance to shell peas-in-the-pod, an aversion strengthened by the fact that processed peas have become increasingly cheaper than peas-in-the-pod and, moreover, that the quality of the processed products compares favourably with the fresh product.

Commercially grown garden peas are an important crop in Canada and in 1971-74 had a farm value averaging \$8.6 million. Average annual per capita consumption has been relatively stable in recent years ranging from 6.5 to 6.3 pounds from 1961-65 to 1971-74.

GROWING, HARVESTING AND MARKETING

The pea will grow vigorously at temperatures much lower than those required by most other vegetables. Its seed will germinate at a soil temperature as low as 5°C, although 16°C is considered ideal. The growing plant benefits more from continued cool weather, and therefore early spring seeding is preferred.

Moisture is important in all phases of pea production. Varieties have different, very specific requirements regarding the number of heat units needed to reach maturity. Thus several varieties as well as staggered planting are used by producers to achieve a more even and longer period of supply.

Growers of fresh market (unshelled) peas also use different varieties and/or staggered planting dates. However, since these peas are hand-picked over an extended period, heat units and planting and harvesting dates do not have to be precise. Selective picking also encourages the formation of additional pods by each plant. In contrast, processing peas are harvested by mechanical harvesters that cut the whole plant, separate the pods from the vines, and usually shell the peas as well.

Green peas will grow in a wide range of soils except very sandy or heavy clay. Muck soils are not desirable because they encourage excessive vine growth with little pod set. Nevertheless, peas need organic matter in the soil and respond favourably to its presence.

The quality (tenderness and sweetness) of peas deteriorates rapidly upon shelling so shelled peas must be delivered to the processing plant within an hour or two of harvesting. Peas-in-the-pod for the fresh market last longer and can be kept fresh for one or two weeks if cooled quickly to near freezing. The quality of peas also deteriorates with added maturity and beyond an optimum harvesting point. Higher prices are paid for the more tender, smaller, processing peas. Yields increase rapidly up to a "tenderometer" reading of about 110; after that point, the increase is slower and quality deteriorates more quickly.

All processing peas are produced under contract. The processors determine the varieties, specify many of the cultural practices such as disease prevention, and timing of planting and harvesting. Frequently they also provide some of the equipment required; this may include viners and even trucks and tote-bins to transport the peas to the plant. Payments are made according to negotiated prices for each grade of peas delivered.

Fresh market, unshelled, peas are marketed in several ways. A portion goes by truck or rail to major market centres and is sold through regular wholesale-retail channels. Some is sold by the grower directly to retail outlets, and some at roadside stands directly to the consumer. The volume of this trade is so small, however, that precise details on marketing methods by volume are not available.

ACREAGE, PRODUCTION AND FARM VALUES

The statistics on acreage, production and farm values, presented in Table 1 (below), apply to both processing and fresh market peas. However, they basically cover peas for processing because 99 per cent of Canadian pea production is used for that purpose.

The total acreage in green pea production has generally changed little during the review period (see Table 1). The average acreage for 1961-65, 1966-70 and 1971-74 was 54.6, 53.3 and 53.9 thousand respectively. In 1974, however, reacting to a low inventory position of processors, the acreage increased to 63.7 thousand, well above the average of previous years.

Average production increased from 127.7 million pounds during 1961-65 to 137.9 million pounds for 1971-74, a rise of 8.0 per cent. In 1974, production reached 168.3 million pounds surpassing 1961-65 figures by 31.7 per cent.

Greater output was realized from a relatively stable acreage because the average yield per acre rose from 2.3 thousand pounds during 1961-65 to 2.6 thousand pounds during 1971-74, an increase of 9.4 per cent. (This yield is determined on the basis of shelled peas. The yield for peas-in-the-pod would amount to about 5,700 pounds because 1 pound of shelled peas roughly equals 2.22 pounds of peas-in-the-pod.)

Table 1 : Peas, Green, Acreage, Production for Processing,
Yield per Acre, Farm Value, Average Farm Value
per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes	7,026	7,848	5,720	8,610	9,130	9,380	8,210	+16.9
Quebec	15,756	17,104	16,320	9,880	15,380	16,360	14,485	- 8.1
Ontario	18,824	19,554	18,270	20,380	24,400	27,700	22,688	+20.5
Prairies	7,318	3,916	2,820	3,130	4,280	4,980	3,803	-48.0
B.C.	5,632	4,850	3,500	4,520	5,350	5,300	4,668	-17.1
Canada	54,556	53,272	46,630	46,520	58,540	63,720	53,853	- 1.3
- Production, '000 lb. -								
Maritimes	..	20,927	16,056	21,500	17,280	25,850	20,172	..
Quebec	30,451	30,185	32,874	13,630	21,868	26,816	23,797	-21.9
Ontario	50,605	52,974	50,272	52,648	68,200	79,000	62,530	+23.6
Prairies	..	10,460	9,372	9,734	13,366	15,076	11,887	..
B.C.	19,181	19,912	14,506	17,012	25,062	21,540	19,530	+ 1.8
Canada	127,734 ^(a)	134,458	123,080	114,524	145,776	168,282	137,916	+ 8.0
- Average Yield, lb. -								
Maritimes	..	2,667	2,807	2,497	1,893	2,756	2,457	..
Quebec	1,933	1,765	2,014	1,380	1,422	1,639	1,643	-15.0
Ontario	2,688	2,709	2,752	2,583	2,795	2,852	2,756	+ 2.5
Prairies	..	2,671	3,323	3,110	3,123	3,027	3,126	..
B.C.	3,406	4,106	4,145	3,764	4,684	4,064	4,184	+22.8
Canada	2,341 ^(a)	2,524	2,640	2,462	2,490	2,641	2,561	+ 9.4
- Farm Value, \$'000 -								
Maritimes	..	..	693	1,017	912	1,625	1,062	..
Quebec	1,329	1,748	1,320	546	1,047	2,269	1,296	- 2.5
Ontario	2,573	2,996	2,708	2,760	3,830	7,500	4,200	+63.2
Prairies	..	..	372	446	643	1,273	684	..
B.C.	914	1,050	839	978	1,520	2,052	1,347	+47.4
Canada	5,676 ^(a)	6,473 ^(a)	5,932	5,747	7,952	14,719	8,588	+51.3
- Farm Value, ¢ per lb. -								
Maritimes	..	..	4.3	4.7	5.3	6.3	5.3	..
Quebec	4.4	5.8	4.0	4.0	4.8	8.5	5.4	+22.7
Ontario	5.1	5.7	5.4	5.2	5.6	9.5	6.7	+31.4
Prairies	..	..	4.0	4.6	4.8	8.4	5.8	..
B.C.	4.8	5.3	5.8	5.7	6.1	9.5	6.9	+43.8
Canada	4.4 ^(a)	4.8 ^(a)	4.8	5.0	5.5	8.7	6.2	+40.9

(a) Includes Maritimes and the Prairies.

Source: Statistics Canada.

The average annual farm value of Canadian green pea production rose from \$5.7 million during 1961-65 to \$8.6 million during 1971-74 an increase of 51.3 per cent. In 1974 alone, the total farm value jumped sharply to \$14.7 million, or 159.3 per cent over 1961-65 figures. This was due to a combination of increased production and sharply higher farm values per pound.

Average farm values or farm-gate prices per pound rose from 4.4 cents during 1961-65 to 6.2 cents for 1971-74, an increase of 40.9 per cent. In 1974, average returns to the farmer jumped to 8.7 cents per pound, nearly twice that of 1961-65 and up about 58 per cent from the year before.

Ontario had the largest acreage and production of green peas throughout the review period; its share of total acreage and production has increased as well. During 1971-74, about 45 per cent of all green peas produced in Canada were grown in Ontario. Other regions, or provinces, however, also had sizable volumes. The Maritimes and Quebec each accounted for some 15 per cent or more and British Columbia and the Prairies each, for around 10 per cent.

Average production per acre in Ontario for 1971-74 exceeded levels in Quebec and the Maritimes, but it was lower than those in British Columbia and the Prairies. During this period, the average yield per acre in British Columbia and the Prairie Provinces was 4,184 and 3,126 pounds respectively, while Ontario had 2,756 pounds. The average Canadian yield was 2,561 pounds.

British Columbia and Ontario producers averaged 6.9 and 6.7 cents per pound, respectively, during the 1971-74 period while those in the Prairies, Quebec and the Maritimes averaged 5.8, 5.4 and 5.3 cents per pound respectively.

SUPPLY AND DISPOSITION

During 1971-74, more than 97 per cent of the green peas produced in Canada were consumed domestically; the rest were exported, almost all in a processed form. Exports, however, have declined by nearly half since 1961-65; the decline occurring almost exclusively in sales of processed peas, see Table 2, and Appendix Table 3.

Canadian growers of green peas supplied close to all the Canadian consumption. Imports of both processed and fresh peas have more than doubled over the past 15 years but only account for 3 per cent of consumption.

Consumption in Canada averaged 138.0 million pounds in 1971-74, an increase of 12.6 per cent over 1961-65. This growth was entirely in processed peas, 12.7 per cent, as peas-in-the-pod declined by 6.0 per cent. More than 99 per cent of all green peas are consumed in the processed form.

Imports of fresh peas for processing have increased, but are less than 1 per cent of all green peas processed in Canada.

Table 2: Peas, Green: Supply and Disposition, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb.	-			
<u>Total Production</u>	127,734	134,458	123,080	114,524	145,776	168,282	137,916	+ 8.0
Total Imports	1,722	3,675	2,122	2,420	4,092	6,579	3,803	+120.8
Fresh(a)	900	744	848	923	933	3,673	1,594	+ 77.1
Total Processed	822(b)	2,931	1,274	1,497	3,159	2,906	2,209	+168.7
Frozen	558	2,762	1,177	1,299	2,683	2,459	1,904	+241.2
Canned	264	169	97	198	476	447	305	+ 15.5
<u>Total Supply Available</u>	129,456	138,133	125,202	116,944	149,868	174,861	141,719	+ 9.5
Available for processing and imported processed	128,772	137,666	124,726	116,124	149,289	174,312	141,113	+ 9.6
From domestic production(c)	127,428	134,274	122,842	114,108	145,528	168,162	137,660	+ 8.0
Imported fresh(c)	522	461	610	519	602	3,244	1,244	+138.3
Imported processed	822	2,931	1,274	1,497	3,159	2,906	2,209	+168.7
Available for fresh market(c)	684	467	476	820	579	549	606	- 11.4
From domestic production	306	184	238	416	248	120	256	- 16.3
Imported(c)	378	283	238	404	331	429	350	- 7.4
Total Exports(d)	6,488	9,622	2,480	2,365	5,404	3,016	3,316	- 48.9
Fresh(e)	39	..	..	..	..	..	..	..
Processed	6,449(b)	9,622	2,480	2,365	5,404	3,016	3,316	- 48.6
Frozen	4,973	8,384	511	1,861	5,201	2,304	2,469	- 50.4
Canned	1,476	1,238	1,969	504	203	712	847	- 42.6

Table 2: Peas, Green: Supply and Disposition, Canada, 1961-1974 (cont.)

	Average 1961-65	Average 1955-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb.	-			
Total Domestic Disappearance	122,968	128,511	122,722	114,579	144,464	171,845	138,403	+ 12.6
Consumed in processed form	122,323	128,044	122,246	113,759	143,885	171,296	137,797	+ 12.7
From domestic production	120,979	124,652	120,362	111,743	140,124	165,146	134,344	+ 11.1
Imported fresh for processing	522	461	610	519	602	3,244	1,244	+138.3
Imported processed	822	2,931	1,274	1,497	3,159	2,906	2,209	+168.7
Fresh market consumption	645	467	476	820	579	549	606	- 6.0
From domestic production	267	184	238	416	248	120	256	- 4.1
Imported	378	283	238	404	331	429	350	- 7.4

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- (a) Fresh market imports converted to shelled peas equivalent, on the basis of .45 lb. per 1 lb.
 (b) Four-year average 1962-1965.
 (c) Estimated from unload data.
 (d) Includes re-exports.
 (e) Four-year average 1961-1964.

Estimates of fresh market consumption of peas-in-the-pod, in terms of shelled equivalent, averaged 606,000 pounds during 1971-74; 256,000 produced domestically, the rest imported. Canadian producers thus supplied some 42.2 per cent of this market, compared with 41.4 per cent in 1961-65.

As shown in Appendix Table 4 and 5, the bulk of domestic fresh market supplies is marketed in July and August while much smaller quantities are available in June and September. During these peak months, domestic production meets almost the entire demand in Canada. Import penetration has fallen from 6.7 and 10.7 per cent in July and August of 1961-65 to 4.2 per cent and 2.6 per cent, respectively, in 1971-74. Imports supplied half the demand during June and September and met all requirements for the rest of the year.

IMPORTS

Prior to 1971, all purchases abroad of fresh market green peas were from the United States and Mexico (see Appendix Table 6). Since 1971, however, imports have included small quantities from Jamaica, Trinidad and Tobago, New Zealand, the Dominican Republic, the Netherlands, and Spain. With the exception of 1971 and 1973, when Mexico was the largest supplier, the United States has been Canada's main source of imports of peas-in-the-pod.

Traditionally, most imports of green peas have entered the central region of Canada, especially Ontario (see Appendix Table 7). This region normally accounts for two-thirds to three-quarters of total Canadian imports; the western region, for most of the remainder. The Atlantic region imported only small volumes of fresh green peas until 1974, when it imported 2.6 million pounds, more than half of Canada's imports. Inasmuch as most of these purchases were concentrated in August and September, during which imports have usually been relatively low, it is believed they comprised mainly bulk fresh peas, shelled and chilled, for processing. Statistics for 1975 indicate a similar pattern.

PRICES

The only statistics available on farm prices of peas in Canada are shown in Table 1. As almost the entire crop is acquired by processors, the figures are very close to those for processing peas. The farm-gate price for all peas averaged 6.2 cents in 1971-74, an increase of some 40 per cent over 1961-65 prices.

From price information available only for British Columbia (see Appendix Table 2), it is evident that peas for processing are much lower priced than peas-in-the-pod for the fresh market. During 1971-74, for example, the average farm prices in British Columbia were 22.4 cents per pound for fresh market peas as compared with 6.6 cents for peas for processing. The 1974 figures were 24.4 and 9.2 cents respectively with the average for all farm sales, as shown in Table 1, being 9.5 cents. The price differential arises from the considerable harvesting cost of fresh market peas. Ontario prices for processing peas in 1974 ranged from 8.57 cents per pound to 16.43 cents per pound, depending on grade. The average return was 9.5 cents.

An import analysis done by the Board revealed wide differences in the prices of imported peas. In 1974, when the average f.o.b. value of all imports was 8.0 cents per pound, peas for processing were imported at prices below this figure, while certain gourmet varieties for the fresh market commanded prices approaching \$2 per pound.

The Board did not obtain information on wholesale-to-retail price, and only limited information was available regarding the landed cost of fresh market peas. The latter figures, not included in the appendix tables, indicate that freights costs of $4\frac{1}{2}$ -5 cents per pound from California considerably exceed the specific duty of 2 cents per pound. This cost thus affords considerably more protection to the Canadian grower than does the duty.

CANADA-UNITED STATES COMPARISONS

U.S. production of green peas averaged just over 1 billion pounds per year during 1971-74 (see Appendix Table 10), about seven times greater than the Canadian average of 138 million pounds. This difference has diminished over the past decade as U.S. production declined and Canadian output increased. While production of green peas for the fresh market also accounts for a minor proportion of total output in the United States, it is, however, of greater importance there than in Canada because of year-round availability.

Average yields per acre in the United States, 2,624 pounds, were slightly higher than in Canada, 2,561 pounds, during 1971-74. However, the average yield in the highest-yielding state, Washington, was below the average yield in the highest-yielding Canadian province, British Columbia.

Table 3 (below) presents data comparing average farm-gate prices for peas in the two countries. While figures are for all green peas, they are representative almost entirely of average returns for peas for processing.

Table 3: Peas, Green: Farm Returns in Cents per Pound,
Canada and the United States, 1961-1974

<u>Period of Year</u>	<u>Canada</u>	<u>United States</u>
Average <u>1961-65</u>	4.4	4.5
Average <u>1966-70</u>	4.8	5.4
1971	4.8	5.4
1972	5.0	5.6
1973	5.5	6.0
1974	8.7	9.8
Average 1971-74	6.2	6.8

Source: Table 1 and Appendix Table 10.

The data indicate that the average return per pound to the Canadian grower for peas for processing is lower than in the United States. Imports of processing peas would, therefore, be expected to take place only when local or regional prices of particular grades were below average in the United States or were advantageous to Canadian processors. For example, processing peas brought into Canada from the United States in 1974 had an f.o.b. value below 8.0 cents per pound, whereas the U.S. average farm-gate price for peas that year was 9.8 cents per pound.

The Board obtained data on production costs for processing peas for Ontario, Quebec, Alberta, British Columbia, Wisconsin and New York. However, these data referred to different time-periods or years and frequently were based on different criteria so that a comparison would have been difficult and generally meaningless. No data exist on costs or production of fresh market peas for Canada or the United States.

TARIFF CONSIDERATIONS

The current tariff provisions for green peas is as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
8720-1 Peas, green per pound	Free	2 cts. or 10 p.c. or Free	2 cts. or 10 p.c. or Free

The Free rate shall apply during the months of October, November, December, January, February, March and April.

During the remaining months in any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 12 weeks, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

When subject to specific rates of duty and imported in packages five pounds or less, each, see additional duty following item 8731-1.

In the above form, the item is bound under GATT. On a temporary basis, the 10 p.c. alternative rate was suspended and free entry provided for the entire period when the specific duty should not be in effect, from February 20, 1973 to June 30, 1974 and again from November 19, 1974 to June 30, 1977. After the latter date, unless the

suspension is further extended, the item will revert to its permanent statutory form.

The rates of duties applicable to peas since 1935 are given in Table 4.

Table 4: Peas, Green: Rates of Duty for Selected Periods

<u>Effective Date</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u> ^(a)
1930, May 2	Free	27½ p.c.	30 p.c.
1936, Jan. 1	Free	15 p.c.	30 p.c.
1939, Jan. 1	Free	10 p.c.	30 p.c.
1948, Jan. 1	Free	2 cts. ^(b) (12 weeks) or 10 p.c.	30 p.c.
1950, June 1 ^(c)	Free	2 cts. (12 weeks) or 10 p.c.	2 cts. (12 weeks) or 10 p.c.
1968, Jan. 1	Free	2 cts. (12 weeks) ^(d) 10 p.c. ^(e) or Free	2 cts. (12 weeks) ^(d) 10 p.c. ^(e) or Free

(a) The General Tariff applied to imports from the United States until December 31, 1935 and to imports from Mexico until February 7, 1946.

(b) Not applied until 1950.

(c) Effective April 10, 1959, packages weighing 5 pounds or less subject to additional duties of 5 p.c. M.F.N. or 10 p.c. Gen., when the specific duty is in effect.

(d) Temporarily suspended, Feb. 20, 1973 - June 30, 1974 and Nov. 19, 1974 - June 30, 1977.

(e) Free rates to apply during months of October, November, December, January, February, March, and April.

In the Tariff Schedules of the United States Annotated, peas are provided for in items 136.98, 136.99 and 137.01 as follows (Column 1 rates are equivalent to the Canadian M.F.N. rate and Column 2 rates to the General Tariff):

		<u>Column 1</u>	<u>Column 2</u>
Peas:			
If entered during the period from July 1 to September 30, inclusive, in any year:			
136.98	Fresh or chilled	0.5¢ per lb.	3.9¢ per lb.
136.99	Frozen	1¢ per lb.	3.9¢ per lb.
137.01	Other	2¢ per lb.	3.9¢ per lb.

The United States applies a lower rate when Canadian fresh peas are available than at other times. As shown in Appendix Table 10, more than 75 per cent of U.S. production is in areas where the climate is similar to growing regions in Canada. This means U.S. produce should be available at the same time as Canada's.

The dates of application and removal of the specific duty for each year since 1966 are given in Appendix Table 11. During the entire study period, the specific duty has never been brought into effect in the central region. Apparently, the 10 p.c. rate, or since 1973, free entry, has been acceptable during the Canadian marketing season. In the Atlantic region, the specific duty has applied each year for virtually the maximum permitted period. During the five-year period 1968-1973 when the Tariff specified free entry for the month of October, the period of application of the specific duty in the Maritime region actually extended into that month. By contrast, the specific duty has only been brought into use in western Canada since the temporary removal of the 10 p.c. rate. Prior to 1973, the latter seems to have been considered preferable.

The average annual f.o.b. unit values of dutiable green peas for the fresh market have risen substantially in recent years (see Appendix Table 12) and the ad valorem equivalent of the specific duty has consequently diminished; it averaged 14.3 per cent during 1966-70 and 8.0 per cent during 1971-74. As suggested above, during 1971, 1972, and 1973 and prior to its temporary suspension, the 10 p.c. duty was generally preferable to the current specific duty of 2 cents per pound with respect to imported peas-in-the-pod.

The ad valorem equivalent of the specific duty has also declined in relation to imports of fresh peas for processing inasmuch as the price level for this product has also risen considerably in recent years. But unit import values for processing peas, ranging from 6 to 8 cents per pound in 1974, are lower than for fresh market peas, therefore the level of protection provided by the specific duty is much higher and ranges from 25 per cent to 33½ per cent.

The Canadian Horticultural Council proposed that the existing specific rate of 2 cents per pound be retained, but that it be made subject to an ad valorem minimum of 15 per cent. It was also requested that the maximum period for application of the seasonal duty be extended to 14 from 12 weeks; no reason was advanced. The Council also proposed that the 10 p.c. rate, now temporarily suspended, be permanently abolished. It further proposed that the additional duty on pre-packaged peas be dropped.

The Canadian Food Processors Association proposed that peas for processing be dutiable at 10 p.c. M.F.N. for up to 12 weeks and free of duty for the rest of the year.

The request of the Horticultural Council for a minimum seasonal ad valorem duty of 15 per cent, on the basis of current import values, would in effect mean higher protection for fresh market peas because the ad valorem equivalent of the current specific duty on fresh market green peas is now less than 10 per cent. The specific duty

equivalent of a minimum of 15 per cent would be considerably higher than 2 cents per pound. It should be noted that the Council's request for a seasonal minimum of 15 per cent would raise the level of protection to what it was during the late 1960s, prior to the erosion of the specific duty during recent years.

The Council's request would permit some further erosion of the specific duty for peas for processing; the specific duty of 2 cents per pound, for which no change was requested, at current unit import values, now has an ad valorem equivalent exceeding 20 per cent. The proposal of the Canadian Food Processors Association would result in an even greater reduction in protection for processing peas. A M.F.N. rate of 10 p.c. would on the basis of 1974 f.o.b. unit import values of processing peas, have a specific value of well below 1 cent per pound. In the event that differential tariff treatment were to be accorded peas-in-the pod for the fresh market from fresh, but shelled, greens peas for processing, a separate tariff item for the latter would have to be introduced.

The extension of the maximum period of application of the seasonal specific duty from 12 to 14 weeks would also provide growers with some additional protection and raise the cost of green peas to consumers. Imports during these two weeks under the current, temporary, provisions entry duty-free, but would have entered at a rate of 10 p.c. under the suspended provisions.

Appendix Table 4 indicates production of green peas can be stretched out over 14 weeks or possibly longer. At the same time, data show that by far the bulk of Canadian output is concentrated in a period of 12 weeks or less. A period of 12 weeks, or for that matter 14 weeks, might not be sufficient for imports of green peas for processing because they are available longer in the United States. A much longer dutiable period for processing peas, even year round, would not be a burden on the processor or Canadian consumer because such imports, when domestic supplies are unavailable, can obtain remission of duty as well as duty drawback when re-exported.

The additional duty on fresh green peas when imported in individual packages of 5 pounds or less, as set forth in tariff item 8720-1, is not operative on imports of fresh peas for processing. Most of the peas marketed in the pod probably are not pre-packed in individual consumer packs, because the volumes involved are too small. This duty is levied only when the seasonal specific duty is in effect.

CONCLUSIONS

Canadian growers produce peas almost exclusively for processing and supply nearly all the requirements of Canadian processors. While imports of processing peas have increased sharply during 1974 and 1975, such imports accounted for less than 2 per cent of all peas processed in Canada. The output of processing peas in Canada has increased less than it might have because Canadian exports of processed peas have declined sharply during the review period while imports of the processed product have increased considerably. This swing in foreign trade amounts to 5 or 6 per cent of total green pea production.

Less than 1 per cent of total output comprises peas-in-the-pod for the fresh market. Imports of fresh market green peas, on an annual basis, account for about 58 per cent of the small fresh market. But these imports of peas-in-the-pod took place mostly during the period when domestic supplies are unavailable. During the period when Canadian green peas are available imports have a small share of the market and this share has not increased.

Canada is therefore largely self-sufficient in supplying its requirements of green peas both for the seasonal fresh market and for processing. Canadian yields, and costs of production, on average, appear to be at least comparable to those in the United States. Canadian growers, also obtain an advantage from freight and brokerage charges on imported fresh peas, especially on peas-in-the-pod. The Board concludes that the protection currently provided by the specific duty of 2 cents per pound, under the Most-Favoured-Nation and General Tariff is sufficient with respect to green peas for the fresh market. The Board also is of the opinion that further erosion of the specific duty should be prevented by the introduction of seasonal minimum duty of 10 p.c. The B.P. rate would continue to be Free.

The Board, furthermore, concludes that it would be desirable to introduce a separate tariff item for green peas imported for processing. Also inasmuch as this item is to be restricted to fresh, shelled or unshelled, and chilled, but not frozen or further processed peas, the Board deems it desirable that the wording of this new item specifies "whether or not shelled or chilled" as well as the end-use "for processing." The Board furthermore concludes that the basic level of ad valorem protection for growers of processing peas should be the same as for peas-in-the-pod, namely 10 per cent; a specific duty for peas for processing is established at 1 cent per pound. These rates would apply to both the Most-Favoured-Nation and General Tariff; the B.P. rates would be Free. The Board recommends that this duty be in effect year round.

The Board concurs with the Horticultural Council's proposal for off-season free entry for fresh market peas and therefore recommends that the permanent 10 p.c. off-season rate, currently under suspension, be abolished. The Board furthermore recommends that the maximum period for the application of seasonal duties of 12 weeks be left unchanged.

The Horticultural Council saw no reason to retain an additional duty on pre-packaged peas. The Board agrees and recommends that the present provision for this duty in tariff item 8720-1 be dropped.

RECOMMENDATIONS

The Board recommends that tariff item 8720-1 be deleted and replaced by the following:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Peas, green, n.o.p. ... per pound	Free	2 cts. but not less than 10 p.c., or Free	2 cts. but not less than 10 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 12 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Peas, green, whether or not shelled or chilled, for processing per pound	Free	1 ct. but not less than 10 p.c.	1 ct. but not less than 10 p.c.
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Peas, Green: Acreage and Number of Farms, by Province
1961 and 1971

	1961		1971		
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	3,536	7.4	6,107	12.5	259
Nfld.	1	*	1	*	2
P.E.I.	403	0.9	2,225	4.6	16
N.S.	921	1.9	1,677	3.4	115
N.B.	2,211	4.6	2,204	4.5	126
Central Region	31,341	65.8	35,650	73.2	1,525
Que.	12,844	27.0	16,316	33.5	509
Ont.	18,497	38.8	19,334	39.7	1,016
Western Region	12,776	26.8	6,938	14.3	517
Man.	1,394	2.9	749	1.6	115
Sask.	14	*	153	0.3	56
Alta.	6,741	14.2	2,048	4.2	138
B.C.	4,627	9.7	3,988	8.2	208
Canada ^(a)	47,654	100.0	48,696	100.0	2,303

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Peas (a): Acreage, Production and Value, British Columbia, 1966-1974

	Fresh (b)			Roadside Sales (b)			Processed (Manufactured) (c)			Total			
	Acres (d)	Quantity '000 lb.	Price ¢/lb.	Quantity '000 lb.	Price ¢/lb.	Total Value \$	Acres	Quantity '000 lb.	Price ¢/lb.	Total Value \$	Acres	Quantity (f) '000 lb.	Total Value \$
1966	-	187	14.6	-	-	-	-	20,667	5.0	1,033,363	5,236	20,854	1,060,665
1967	-	90	17.2	-	-	-	-	19,654	4.5	884,430	5,314	19,744	899,963
1968	28	162	15.7	-	-	-	5,602	22,237	5.5	1,223,035	5,630	22,399	1,248,469
1969	26.5	88	20.7	-	-	-	5,493	21,334	5.5	1,182,471	5,519.5	21,422	1,200,721
1970	30	98	23.6	-	-	-	4,606	18,238	5.8	1,050,142	4,636	18,336	1,073,272
Average 1966-70	28.2 (e)	125	18.4	-	-	-	5,234 (e)	20,426	5.3	1,074,688	5,267	20,551	1,096,618
1971	28	131	18.7	-	-	-	3,667	14,642	5.8	849,388	3,695	14,701	873,930
1972	21	54	22.5	31	18.0	5,570	4,300	16,679	5.7	944,020	4,322	16,717	961,740
1973	33.7	139	23.9	40	28.8	11,540	5,260	25,067	5.8	1,453,858	5,293.7	25,148	1,498,573
1974	24	80	24.4	39	31.6	12,320	5,271	21,542	9.2	1,981,839	5,295	21,596	2,013,699
Average 1971-74	27	101	22.4	37 (e)	26.1	9,810	4,625	19,483	6.6	1,307,276	4,651	19,545	1,336,986

(a) From 1966 to 1970 classified as green peas.

(b) From 1971 includes peas-in-the-pod.

(c) From 1971 includes shelled peas.

(d) Includes roadside sales.

(e) Three-year average.

(f) From 1971, fresh and roadside sales quantity included in total in shelled equivalent.

Source: B.C. Department of Agriculture.

Peas, Green: Supply and Disposition Ratios, Canada, Calendar Years, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74
	- per cent -						
<u>Per Cent of Domestic Production:</u>							
Sold for Processing	99.8	99.9	99.8	99.6	99.8	99.9	99.8
Sold to Domestic Fresh Market	0.2	0.1	0.2	0.4	0.2	0.1	0.2
Exported, fresh	*	..	..	..	..	..	..
<u>Total Imports as Per Cent:</u>							
of Total Supply Available	1.3	2.7	1.7	2.1	2.7	3.6	2.5
of Total Domestic Disappearance	1.4	2.9	1.7	2.1	2.8	3.6	2.5
<u>Fresh Market Imports as Per Cent:</u>							
of Fresh Market Availability	55.3	60.6	50.0	49.3	57.2	605.1	290.2
of Fresh Market Consumption	58.6	60.6	50.0	49.3	57.2	605.1	290.2
<u>Processed Imports as Per Cent:</u>							
of Consumption in Processed Form	0.7	2.3	1.0	1.3	2.2	1.7	1.6
of Total Domestic Disappearance	0.7	2.3	1.0	1.3	2.2	1.7	1.6
<u>Per Cent of Fresh Market Consumption:</u>							
From Domestic Production	41.4	39.4	50.0	50.7	42.8	21.9	42.2
From Imports	58.6	60.6	50.0	49.3	57.2	78.1	57.8
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	99.5	99.6	99.6	99.3	99.6	99.7	99.6
Consumed in Fresh Form	0.5	0.4	0.4	0.7	0.4	0.3	0.4
Production as % of Total Domestic Disappearance	104.1	104.8	100.6	100.2	100.1	98.1	99.9

Source: Table 2.

Peas, Green: Estimated Monthly Distribution of
Fresh Shipments^(a), 1966-1974

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
			- thousand pounds -			
Jan.	-	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
May	-	-	-	-	-	-
June	28	22	40	16	32	1
July	117	158	129	259	180	65
Aug.	39	75	69	140	36	53
Sept.	-	1	-	1	-	1
Oct.	-	-	-	-	-	-
Nov.	-	-	-	-	-	-
Dec.	-	-	-	-	-	-
Year	184	256	238	416	248	120

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada.

Peas, Green: Monthly Distribution of Fresh Market
Consumption, 1961-1974

<u>Month</u>	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>			
	<u>Imports as % of Con- sumption</u>	<u>Imports as % of Con- sumption</u>	<u>From Domestic Produc- tion</u>	<u>From Imports</u>	<u>Total Consump- tion</u>	<u>Imports as % of Con- sumption</u>
	- per cent	-	- thousand pounds		-	per cent
Jan.	100.0	100.0	-	51	51	100.0
Feb.	100.0	100.0	-	70	70	100.0
Mar.	100.0	100.0	-	78	78	100.0
Apr.	100.0	100.0	-	51	51	100.0
May	100.0	100.0	-	28	28	100.0
June	55.9	30.0	22	25	47	53.2
July	6.7	1.7	158	7	165	4.2
Aug.	10.7	-	75	2	77	2.6
Sept.	66.7	100.0	1	4	5	80.0
Oct.	-	100.0	-	10	10	100.0
Nov.	100.0	100.0	-	1	1	100.0
Dec.	100.0	100.0	-	23	23	100.0
Total	58.6	60.6	256	350	606	57.8

Source: Derived from Statistics Canada and Agriculture Canada.

Appendix Table 6

Peas, Green: Imports by Country of Origin, 1966-1975

	<u>United States</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
		- thousand pounds	-	
1966	477	400	-	878
1967	457	482	-	940
1968	393	432	-	825
1969	803	552	-	1,355
1970	871	582	-	1,453
Average 1966-70	600	490	-	1,090
1971	555	579	4	1,138
1972	820	593	3	1,416
1973	595	697	45	1,337
1974	3,398	787	12	4,198
1975	2,318	356	9	2,683
Average 1971-75	1,537	603	14	2,154

Source: Statistics Canada.

Appendix Table 7

Peas, Green: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		- thousand pounds	-			
Atlantic Region	93	3	3	8	2,618	1,520
Nfld.	-	-	-	-	-	-
P.E.I.	-	-	-	-	*	-
N.S.	1	*	2	5	10	4
N.B.	92	3	1	3	2,609	1,516
Central Region	773	819	1,028	886	1,130	759
Que.	181	153	167	214	208	142
Ont.	593	666	861	672	923	617
Western Region	224	316	385	443	449	404
Man.	13	10	24	9	52	34
Sask.	1	3	27	14	4	11
Alta.	11	41	52	66	87	122
B.C.	198	262	303	355	306	238
Canada	1,090	1,138	1,416	1,337	4,198	2,683

Source: Statistics Canada.

Peas, Green: Imports by Month, 1966-1975

<u>Month</u>	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974^(a)</u>	<u>1975^(a)</u>
- thousand pounds -								
Jan.	75	6.9	181	8.4	195	155	261	117
Feb.	196	17.9	184	8.5	282	254	167	165
Mar.	163	14.9	208	9.7	213	269	294	136
Apr.	124	11.3	162	7.5	143	100	270	53
May	78	7.1	141	6.6	194	117	117	151
June	101	9.3	156	7.2	149	127	133	183
July	112	10.3	173	8.0	138	109	149	416
Aug.	120	11.0	447	20.7	10	22	1,188	997
Sept.	23	2.1	346	16.1	9	43	1,334	328
Oct.	46	4.2	89	4.1	39	52	232	46
Nov.	25	2.3	31	1.5	19	34	29	60
Dec.	29	2.7	37	1.7	25	55	24	30
Total	1,090	100.0	2,154	100.0	1,416	1,337	4,198	2,683

(a) Includes shelled peas for processing.

Source: Statistics Canada.

Peas, Green: Percentage Distribution of Imports to Fresh Market
from United States, by State of Origin, by Region
and from Mexico, 1972-1974

	<u>California</u>	<u>Florida</u>	<u>New Jersey</u>	<u>Other States</u>	<u>Mexico</u>	<u>Total</u>
- per cent -						
<u>1972</u>						
Atlantic Region	-	100.0	-	-	-	100.0
Central Region	20.7	0.1	8.7	-	70.5	100.0
Western Region	52.3	-	-	-	47.7	100.0
Canada	25.2	0.2	7.5	-	67.1	100.0
<u>1973</u>						
Atlantic Region	12.5	75.0	12.5	-	-	100.0
Central Region	17.1	-	6.3	-	76.6	100.0
Western Region	40.8	-	-	1.9	57.3	100.0
Canada	20.4	0.8	5.4	0.3	73.1	100.0
<u>1974</u>						
Atlantic Region	-	80.0	20.0	-	-	100.0
Central Region	8.9	-	2.0	-	89.1	100.0
Western Region	71.0	-	-	-	29.0	100.0
Canada	20.5	0.4	1.7	-	77.4	100.0

Source: Agriculture Canada.

Peas, Green for Processing: Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound,
United States, by State, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
Minnesota		63,900	66,400	74,400	69,500	68,550
Oregon		39,500	44,800	50,600	43,000	44,475
Washington		57,200	61,800	73,000	76,400	67,100
Wisconsin		125,100	122,200	123,200	129,800	125,075
Other States		<u>97,210</u>	<u>82,470</u>	<u>99,390</u>	<u>99,000</u>	<u>94,518</u>
Total	426,480	382,910	377,670	420,590	417,700	399,718
- Production, '000 lb. -						
Minnesota		143,100	166,000	199,400	162,600	167,775
Oregon		113,800	109,300	74,900	105,800	100,950
Washington		210,500	195,300	242,400	241,400	222,400
Wisconsin		292,700	327,500	243,900	345,300	302,350
Other States		<u>280,600</u>	<u>225,800</u>	<u>241,100</u>	<u>273,700</u>	<u>255,300</u>
Total	1,073,640	1,040,700	1,023,900	1,001,700	1,128,800	1,048,775
- Average Yield, lb. -						
Minnesota		2,239	2,500	2,680	2,340	2,447
Oregon		2,881	2,440	1,480	2,460	2,270
Washington		3,680	3,160	3,321	3,160	3,314
Wisconsin		2,340	2,680	1,980	2,660	2,417
Other States		2,887	2,738	2,426	2,765	2,701
Total	2,517	2,718	2,711	2,382	2,702	2,624
- Value, \$'000 -						
Minnesota		8,228	9,711	11,266	17,642	11,712
Oregon		5,337	5,356	4,457	10,739	6,472
Washington		10,841	11,132	14,908	25,347	15,557
Wisconsin		15,806	18,340	14,634	30,041	19,705
Other States		<u>15,712</u>	<u>12,961</u>	<u>14,429</u>	<u>26,559</u>	<u>17,415</u>
Total	57,516	55,924	57,500	59,694	110,328	70,862
- Farm Value, ¢ per lb. -						
Minnesota		5.7	5.9	5.6	10.8	7.0
Oregon		4.7	4.9	6.0	10.2	6.4
Washington		5.2	5.7	6.2	10.5	7.0
Wisconsin		5.4	5.6	6.0	8.7	6.5
Other States		5.6	5.7	6.0	9.7	6.8
Total	5.4	5.4	5.6	6.0	9.8	6.8

Source: U.S. Department of Agriculture.

Peas, Green: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year (a)	Atlantic Provinces (b)			Central Canada (c)			Western Canada (d)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	-	-	-	-	-	-	-	-	-
1967	July 26	Oct. 18	84	-	-	-	-	-	-
1968	July 19	Oct. 1	74	-	-	-	-	-	-
1969	July 22	Oct. 14	84	-	-	-	-	-	-
1970	July 24	Oct. 8	76	-	-	-	-	-	-
1971	July 22	Oct. 14	84	-	-	-	-	-	-
1972	July 21	Oct. 14	85	-	-	-	-	-	-
1973	July 20	Oct. 12	84	-	-	-	July 4	Sept. 26	84
1974	July 26	Oct. 17	83	-	-	-	July 16	Oct. 7	83
1975	July 29	Oct. 20	83	-	-	-	July 29	Oct. 20	83

(a) Government fiscal year beginning April 1st; ending March 31st of following year.

(b) Excludes Newfoundland.

(c) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(d) Includes Thunder Bay and west thereof.

Source: National Revenue.

Peas, Green: Fresh Market, Dutiable Imports and the Ad Valorem
Equivalent of the M.F.N. Specific Duty, 1966-1974

Year	Imports				Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total (a) '000 lb.	Non Dutiable '000 lb.	%	Dutiable '000 lb.			
1966	878	-	-	878	12.8	2.0	15.6
1967	940	-	-	940	13.2	2.0	15.2
1968	825	567	68.7	258	18.6	2.0	10.8
1969	1,355	715	52.8	640	13.9	2.0	14.4
1970	1,453	895	61.6	558	15.4	2.0	13.0
Average 1966-70	1,090	435	39.9	655	14.0	2.0	14.3
1971	1,089	784	71.9	306	26.1	2.0	7.7
1972	1,416	987	69.7	430	18.3	2.0	10.9
1973	1,337	1,254	93.8	82	46.2	2.0	4.3
1974	1,596	1,400	87.7	196	29.4	2.0	6.8
Average 1971-74	1,360	1,106	81.4	253	25.1	2.0	8.0

(a) Figures probably include peas imported for processing.

Source: Statistics Canada.

PEPPERSTable of Contents

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PEPPERS

The peppers considered in this report are Capsicum annum, a species native to the tropics. C. annum is of the Solanaceae family and, therefore, related to the potato, tomato and eggplant, and not to Piper nigrum, the species that furnishes black and white peppers used in ground form as a condiment. Piper nigrum is not grown in Canada. Fruit size, shape and colour of C. annum are extremely variable, more so than for any other species. The fruit varies in size from 1 to 30 centimeters in length; it varies in shape from small conical to thick-fleshed, blocky or flattened. Both yellow and green immature fruits, and red, yellow, and brown mature fruits are common.

C. annum is a bushy annual plant that grows from 2 to 4 feet high. While it is annual in temperate climate, it may be biennial in warmer latitudes. The varieties of peppers may be classified in two main kinds: (a) those with mild or sweet-fleshed fruits; (b) those with hot or pungent-fleshed fruits.

Peppers are a relatively minor crop in Canada and are grown commercially only in the most southerly parts of Ontario and Quebec and, to a much lesser degree, the Okanagan Valley of British Columbia.

The bulk of the pepper output is consumed in fresh form. However, sweet peppers are also canned or are pickled in brine for use in salads or other foods. Diced green or red sweet peppers are sometimes mixed with sweet canned corn or other vegetables. Pimento peppers are canned largely for use in preparing such foods as pimento cheese and the red stuffing for olives. Paprika is the finely ground fruit walls of paprika peppers, a mild type. An increasing volume of peppers is being frozen for later use in pizzas and other food preparations.

GROWING, HARVESTING AND MARKETING

Peppers require a long, warm, growing season and are more sensitive to cold than most common garden plants grown in this country. Not only will peppers be killed by a very light frost but they will also fail to thrive during cool periods when temperatures are in the 5°C to 15°C range. For this reason, all crops grown in Canada originate from transplants that have been started in a greenhouse some eight to 10 weeks prior to field setting. Peppers are field planted with a transplanting machine when the danger of the last frost has disappeared.

The crop is harvested in either the green or ripe stage; most of the large sweet bell-shaped types are harvested when green. Peppers are hand-harvested by breaking the fruit from the plant with the stems left attached to the fruit.

The marketing season for domestic peppers runs from late July to the end of October, with September the peak month. The growers size, grade and pack peppers in different-sized containers for the retail market where the vegetable is sold by the pound or as individual fruits. Peppers for processing are delivered by the

growers in bushels or crates but are, however, sold by weight. Peppers are not a storable vegetable; under the most ideal conditions they can be kept for a maximum of two weeks.

PRODUCTION

Very little information is available on production of peppers in Canada. Estimates prepared by the Board indicate that average yearly production increased by 48 per cent between 1961-65 and 1971-74, from 11.3 million pounds to 16.7 million pounds (see Table 1). The relatively cool weather prevalent during the 1972 growing season had a particularly noticeable effect on pepper production, which dropped to an estimated 12.2 million pounds in that year.

Based on data relating to acquisitions by processors, production of peppers for processing during 1971-74 averaged 3.2 million pounds, or 19 per cent of total estimated output. The remaining 81 per cent is assumed to have gone to the fresh market.

Almost all of the Canadian peppers are grown in August, September, and October. Small, and diminishing, amounts are marketed in July and November.

SUPPLY AND DISPOSITION

All peppers grown in Canada appear to be consumed domestically, either in fresh or in processed form; there are no reported exports. Canadian consumption of peppers averaged an estimated 57.8 million pounds during the period 1971-74, up 108 per cent in comparison with the period 1961-65; per capita consumption increased from 1.47 pounds to 2.63 pounds, or by 79 per cent. Growth was primarily in the consumption of fresh peppers, which accounted for 93 per cent of estimated domestic disappearance in the period 1971-74 (see Table 1).

Total fresh imports rose from an annual average of 16.1 million pounds in 1961-65 to 40.1 million pounds in 1971-74, an increase of about 149 per cent. In 1971-74, fresh imports comprised on average, some 75 per cent of total fresh market consumption compared with 63 per cent in the 1961-65 period.

Table 2 shows that the growth in fresh import penetration occurred primarily during the period when domestic peppers were on the market. Imports during the main domestic marketing season (August-October) accounted for an estimated average of 20.2 per cent of total fresh consumption during the period 1961-65, a percentage which rose to an average of 35.2 per cent of on-season consumption in 1971-74. Expressed in different terms, domestic production increased by 48 per cent, whereas on-season fresh imports rose by 218 per cent. During the off-season Canadian consumers are entirely dependent on fresh imports.

Table 1: Peppers: Supply and Disposition, Canada, 1961-65 to 1971-74

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
	- '000 lb. -							
Total Production ^(a)	11,300	14,700	19,400	12,200	15,700	19,530	16,708	+ 47.9
Total Imports	16,464	26,608	31,149	39,354	44,006	49,976	41,121	+149.8
Fresh	16,110	25,863	30,470	38,244	42,887	48,751	40,088	+148.8
Processed (canned)	354	745	679	1,110	1,119	1,225	1,033	+191.8
Total Supply	27,764	41,308	50,549	51,554	59,706	69,506	57,829	+108.3
Exported	-	-	-	-	-	-	-	-
Total Domestic Disappearance	27,764	41,308	50,549	51,554	59,706	69,506	57,829	+108.3
Consumed in processed form	2,557	3,431	4,393	2,606	3,943	6,065	4,252	+ 66.3
From domestic production	2,039	1,910	3,714	1,496	2,824	4,840	3,219	+ 57.9
Imported processed	354 ^(b)	745 ^(c)	679	1,110	1,119	1,225	1,033	+191.8
Imported fresh	164	776 ^(d)	(d)	(d)	(d)	(d)	(d)	..
Fresh market consumption	25,207	37,877	46,156	48,948	55,763	63,441	53,577	+112.5
From domestic production	9,261	12,790	15,686	10,704	12,876	14,690	13,489	+ 45.7
Imported	15,946	25,087	30,470	38,244	42,887	48,751	40,088	+151.4

(a) Tariff Board estimate.

(b) Four-year average 1961-64.

(c) Three-year average 1968-70.

(d) Confidential.

Source: Derived from Statistics Canada and Agriculture Canada data.

Imports of processed canned peppers, in terms of fresh equivalent, showed an increase of 192 per cent between the periods under review; however, the quantity remained small and averaged about 1 million pounds, or less than 2 per cent of average total consumption during 1971-74. At the same time, consumption of domestic peppers in processed form rose by 58 per cent to an average of 3.2 million pounds or slightly more than 5 per cent of total pepper consumption.

Table 2: Peppers: Fresh Production, Fresh Imports, and Fresh Consumption, 1961-1974

	Average <u>1961-65</u>	Average <u>1966-70</u>	Average <u>1971-74</u>
	- '000 lb. -		
Production			
On-season (a)	8,956	12,368	13,289
Off-season (b)	305	422	200
Total	9,261	12,790	13,489
Imports (c)			
On-season (a)	2,270	4,406	7,228
Off-season (b)	13,840	21,457	32,860
Total	16,110	25,863	40,088
Consumption (c)			
On-season (a)	11,226	16,774	20,517
Off-season (b)	14,145	21,879	33,060
Total	25,371	38,653	53,577
Imports as % of consumption			
On-season (a)	20.2	26.3	35.2
Off-season (b)	97.8	98.1	99.4
Total	63.5	66.9	74.8

(a) August-October.

(b) January-July and November-December.

(c) Includes some fresh for processing.

Source: Derived from Statistics Canada data.

IMPORTS

The primary source of imported peppers is the United States which, since 1966, has accounted for 80-90 per cent of total shipments to Canada. The only other supplier of consequence is Mexico (see Appendix Table 4).

Within the United States, Florida, the second largest producing state, is the principal exporter to Canada and accounted for 42 per cent of total Canadian imports. Florida peppers comprise the bulk of imports into the Atlantic region and half of central region imports. California, the largest producer in the United States, and Mexico, are the major suppliers to the western region. California and Mexico each provided some 16 per cent of total Canadian imports in 1974.

As well as being the main producers, Ontario and Quebec were also the largest importers, jointly accounting for 74 per cent of average annual imports during 1971-74; during 1966-70 these two provinces obtained 79 per cent of total fresh pepper imports.

PRICES

Wholesale-to-retail price data relating to imported and domestic peppers sold in certain major Canadian markets in 1974 are given in detail in Appendix Tables 8a and 8b and are summarized in Table 3. Firm comparisons are difficult to make because of a lack of comparable quotations. It will be noted, however, that with the appearance of domestic peppers on the Toronto market there was a virtual disappearance of quotations for the imported product thereby suggesting that foreign peppers were not able to compete in that market on the basis of price. At Winnipeg, California red peppers were apparently not sold when the domestic reds were available, while domestic green peppers were quoted at prices considerably below those for the Californian products.

Information collected by the Board with respect to the landed cost of peppers imported from the United States and Mexico in 1972-74 is summarized in Table 4; the detailed data on which this table is based can be found in Appendix Tables 9a and 9b. With only one exception, the data relate to imports entered duty-free; however, it is evident that even if duty had applied, the cost of freight, brokerage and other transportation costs would have provided a markedly greater degree of protection than that provided by the 1 cent per pound duty. On shipments from California and Florida in 1974, freight and other charges varied widely but were predominantly in the 5 to 7 cents per pound range (20-35 per cent of the f.o.b. value). On shipments from Mexico into the Vancouver market, freight and other charges ranged from 6.1 to 6.8 cents (30 to 76 per cent of the f.o.b. value).

Table 3: Average Wholesale to Retail Selling Prices for Domestic and Imported Peppers in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974(a)

	Halifax		Montreal		Toronto		Winnipeg		Vancouver	
	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.
	- ¢ per lb. -									
Jan.	-	-	-	24.7	-	23.9	-	32.4	-	41.5
Feb.	-	-	-	27.2	-	-	-	25.5	-	36.5
Mar.	-	32.5	-	25.7	-	-	-	26.4	-	32.8
Apr.	-	38.7	-	28.6	-	40.9	-	36.0	-	36.3
May	-	52.8	-	35.1	-	50.5	-	40.9	-	54.8
June	-	43.1	-	34.4	-	42.8	-	40.0	-	46.0
July	-	38.7	-	24.4	17.5	32.1	-	37.2	-	41.5
Aug.	-	28.8	17.0	18.5	22.0	-	21.7	30.4	-	37.4
Sept.	-	27.5	18.2	18.2	17.6	15.8	28.1	24.4	24.4	32.0
Oct.	-	29.9	16.3	21.8	16.5	20.4	23.6	25.3	-	31.0
Nov.	-	35.0	-	30.9	-	22.1	-	34.3	-	36.0
Dec.	-	28.8	-	23.7	-	29.6	-	38.3	-	38.0

(a) As based on price per pound comparison of 30-pound carton or bushel.

Source: Appendix Tables 8a and 8b.

Table 4: The Landed Cost of Imported Peppers in Toronto, Montreal, Winnipeg, and Vancouver, 1972-1974

		<u>Cost</u> <u>f.o.b.</u>	<u>Freight,</u> <u>Brokerage,</u> <u>etc.</u>	<u>Duty</u>	<u>Total</u> <u>Landed</u> <u>Cost</u>
- range in ¢ per lb. -					
Toronto	1972	12.5-16.6	3.0-6.5	Free-1.0	15.5-23.1
	1973	6.7-23.3	3.3-4.7	Free	11.4-26.7
	1974	13.9-22.7	4.1-5.3	Free	18.0-28.0
Montreal	1974	-	-	-	-
Winnipeg	1974	10.5-31.7	4.1-9.1	Free	17.5-35.9
Vancouver	1974	8.8-48.3	2.8-7.3	Free	15.5-55.1

Source: Appendix Tables 9a and 9b.

CANADA-UNITED STATES COMPARISONS

Total U.S. output of peppers averaged 463.5 million pounds per year or 28 times the estimated Canadian average of 16.7 million pounds in 1971-74 (see Appendix Table 10). Between the periods 1966-70 and 1971-74, average yearly output in the United States advanced by some 8 per cent; in Canada by 14 per cent.

California, with three crops per year, was the largest producing state, with an annual average output in 1971-74 of 164.0 million pounds, 10 times Canadian output, followed, with the two crops, by Florida and Texas with 143.6 and 48.1 million pounds respectively. Between them, these three states accounted for about 77 per cent of total U.S. output.

TARIFF CONSIDERATIONS

Fresh peppers are classified under tariff item 8721-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Peppers per pound	Free	1 ct. or Free	1 ct. or Free

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 8 weeks and the Free rate shall apply whenever the specific duty is not in effect.

The present tariff rates have been in effect since April 10, 1959. Prior to that time, peppers were subject to an ad valorem duty, with no free period, under the Most-Favoured-Nation and General Tariff (see Table 5). Tariff item 8721-1 is bound under GATT.

When imported into the United States, peppers from Canada are dutiable under item 137.10 at the rate of $2\frac{1}{2}$ cents per pound.

Table 5: Peppers: Rates of Duty for Selected Periods

<u>Period</u> ^(a)	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u> ^(b)
1935	Free	27 $\frac{1}{2}$ p.c.	30 p.c.
1936-38	Free	15 p.c.	30 p.c.
1939-1959 (April 9)	Free	10 p.c.	30 p.c.
1959 (April 10)	Free	1 ct. (8 weeks) Free	1 ct. (8 weeks) Free

(a) Before April 10, 1959, peppers were classified as "Vegetables, fresh, n.o.p."

(b) The General Tariff was applicable to imports from the U.S.A. until December 31, 1935 and to those from Mexico until February 7, 1946.

Source: Canadian Customs Tariff.

The Canadian Horticultural Council proposed, in its brief to the Board, that the seasonal duty on peppers be increased to $2\frac{1}{2}$ cents per pound with an ad valorem minimum of 15 per cent and that the maximum period of application of the duty be extended to 12 weeks. It was also proposed that the words "including pimentos" be added to the nomenclature of tariff item 8721-1. The basis of the Council's proposal for an increase in the rate of duty was the erosion in the degree of protection provided by the present specific duty due to the increase in the price of peppers.

The dates of application and removal of the seasonal duty since 1966 are listed in Appendix Table 11. In western Canada, with the exception of 1974, the seasonal duty has been applied on a regular basis for the maximum period of eight weeks. In central Canada and the Maritime Provinces it has been invoked less frequently but usually for the full period.

The Council's contention that the degree of protection afforded domestic pepper growers has diminished in recent years is borne out by the Board's calculations of the ad valorem equivalent of the 1-cent specific duty, since 1966 (see Appendix Table 12). For the period 1966-70, the average annual ad valorem equivalent duty was 9.7 per cent; for 1971-75, it was 6.8 per cent (5.6 per cent in 1975).

The proposed rate of $2\frac{1}{2}$ cents per pound would raise the cost of the duty by $1\frac{1}{2}$ cents per pound on dutiable green peppers imported during the present eight-week period of application of the seasonal duty. The increase in duty on green peppers imported during the additional four weeks would be $2\frac{1}{2}$ cents per pound, since at present, entry at that time is free. The ad valorem equivalent of the $2\frac{1}{2}$ -cent duty, on the basis of an average unit import value of 18.7 cents per pound in 1974 is about 14 per cent. This would restore the protection lost during the 1970s as a result of rising prices. A specific duty of 2 cents per pound would, on the basis of 1974 import values, be equivalent to 11 per cent.

The proposed minimum ad valorem seasonal rate of 15 per cent would more than compensate for the protection lost in recent years. The minimum ad valorem rate of 15 per cent would already be the effective rate for a large part of Canadian imports. A minimum ad valorem rate would limit further erosion of the protection offered by the specific duty.

The proposal to raise the specific duty to $2\frac{1}{2}$ cents for a maximum period of 12 weeks would add to the cost of peppers for Canadian consumers, and would provide additional benefits to government, retailers and wholesalers and growers. On the basis of assumptions and limitations outlined in the introduction of this report, the Board has calculated that the additional protection could cost the Canadian consumer as much as \$590,800 more, or 10-11 cents per family of four. Growers could benefit in the amount of \$247,000.

The Board could not obtain evidence that "pimentos" have been imported under a tariff item other than 8721-1 being considered here. If this occurs, and this is not inconceivable, then the most likely alternative tariff item would be tariff item 8731-1, the n.o.p. item. In this instance such imports would enter duty-free.

CONCLUSIONS

Consumption of both fresh and processed peppers has been increasing rapidly in Canada, doubling between 1961-65 and 1971-74. Greater quantities of this vegetable are being grown in Canada and imports have increased sharply, particularly during the domestic off-season months. At the same time, imports have increased their share of the market during the months when Canadian production comes on the market from about 20 per cent in 1961-65 to 35 per cent during 1971-74. Almost all imports are in fresh form; processed imports, expressed in fresh equivalent, averaged slightly more than 1 million pounds during 1971-74 or 2.5 per cent of total average imports.

There was a marked drop in the degree of protection afforded Canadian pepper growers between 1966-70 and 1971-75. As with many other vegetables subject to a specific duty, the (often) rapid rise in the unit import value of the product in recent years has resulted in a substantial drop in its ad valorem equivalent. In the case of peppers, the average ad valorem equivalent of the 1 cent specific duty was 9.7 per cent during 1966-70; it averaged 6.8 per cent in 1971-75, and was 5.6 per cent in 1975.

The Board is reluctant to see a further decline in the degree of protection. The Board in fact sees merit in restoring the degree of protection to a level slightly above the level afforded by growers during the 1966-70 period. Therefore, it is recommended that the seasonal duty on fresh peppers be increased to 2 cents per pound but not less than 10 per cent ad valorem under the Most-Favoured-Nation and General Tariff. Furthermore, the Board recommends that the maximum period of application of the seasonal duty be extended to 12 weeks. At all other times, in any 12-month period ending 31st March, free entry is recommended.

The Board also recommends a change in the nomenclature of the tariff item relating to peppers to include the phrase "including pimentos" which are a variety of Capsicum annum.

RECOMMENDATIONS

The Board recommends that tariff item 8721-1 be deleted from Schedule "A" of the Customs Tariff and that the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Peppers, including pimentos per pound	Free	2 cts. but not less than 10 p.c., or Free	2 cts. but not less than 10 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 12 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Peppers: Supply and Disposition Ratios, Canada, 1961-65 to 1971-74

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74
			-	per cent	-		
Per Cent of Domestic Production:							
Sold for Processing	18.0	13.0	19.1	12.3	18.0	24.8	19.3
Sold to Domestic Fresh Market	82.0	87.0	80.9	87.7	82.0	75.2	80.7
Exported	-	-	-	-	-	-	-
Total Imports as Per Cent:							
of Total Supply Available	59.4	64.5	61.6	76.3	73.7	71.9	71.1
of Total Domestic Disappearance	59.4	64.5	61.6	76.3	73.7	71.9	71.1
Per Cent of Fresh Market Consumption:							
From Domestic Production	36.7	33.8	34.0	21.9	23.1	23.2	25.2
From Imports	63.3	66.2	66.0	78.1	76.9	76.8	74.8
Per Cent of Total Domestic Disappearance:							
Consumed in Processed Form	9.4	8.6	8.7	5.1(a)	6.6(a)	8.7(a)	7.4(a)
Consumed in Fresh Form	90.6	91.4	91.3	94.9	93.4	91.3	92.6
Production as % of Total Domestic Disappearance	40.6	35.5	38.4	23.7	26.3	28.1	28.9

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(a) Does not include imported fresh for processing because of confidentiality.

Source: Table 1.

Appendix Table 2

Peppers: Estimated Monthly Distribution of Fresh Shipments,^(a)
1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
			- thousand pounds -			
Jan.	-	-	-	-	-	-
Feb.	-	-	-	-	-	-
Mar.	-	-	-	-	-	-
Apr.	-	-	-	-	-	-
May	-	-	-	-	-	-
June	-	-	-	-	-	-
July	320	163	314	43	193	103
Aug.	4,285	3,557	3,765	2,430	4,919	3,114
Sept.	5,653	7,050	8,251	5,727	5,511	8,711
Oct.	2,430	2,682	3,263	2,462	2,240	2,762
Nov.	102	37	94	43	13	-
Dec.	-	-	-	-	-	-
Year	12,790	13,489	15,686	10,704	12,876	14,690

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 3

Peppers: Monthly Distribution of Fresh Market Consumption,
1961-1974

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent	-	- thousand pounds	-	-	per cent
Jan.	100.0	100.0	-	3,736	3,736	100.0
Feb.	100.0	100.0	-	3,249	3,249	100.0
Mar.	100.0	100.0	-	3,414	3,414	100.0
Apr.	100.0	100.0	-	3,241	3,241	100.0
May	100.0	100.0	-	3,431	3,431	100.0
June	100.0	100.0	-	3,517	3,517	100.0
July	87.2	90.2	163	4,589	4,752	96.6
Aug.	17.4	25.7	3,557	2,707	6,264	43.2
Sept.	11.8	14.7	7,050	1,583	8,633	18.3
Oct.	39.7	44.4	2,682	2,938	5,620	52.3
Nov.	97.2	96.0	37	3,910	3,947	99.1
Dec.	100.0	100.0	-	3,773	3,773	100.0
Total	63.5	66.9	13,489	40,088	53,577	74.8

Source: Derived from Statistics Canada and Agriculture Canada data.

Peppers: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Cuba</u>	<u>Others</u>	<u>Total</u>
		- thousand pounds		-	
1966	19,814	2,058	264	-	22,136
1967	21,484	1,723	540	-	23,747
1968	24,150	1,518	-	-	25,668
1969	26,760	3,046	96	7	29,909
1970	23,323	4,514	-	16	27,853
Average 1966-70	23,106	2,572	180	5	25,863
1971	24,173	6,293	-	4	30,470
1972	33,212	4,945	-	88	38,244
1973	35,131	7,733	-	24	42,887
1974	41,927	6,747	-	78	48,751
1975	42,993	4,432	-	46	47,471
Average 1971-75	35,487	6,030	-	48	41,565

Source: Statistics Canada.

Peppers: Imports by Provinces and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		- thousand pounds		-		
Atlantic Region	737	996	1,187	1,328	1,656	
Nfld.	3	15	9	43	13	
P.E.I.	10	28	26	38	34	
N.S.	259	315	444	453	516	
N.B.	465	638	708	794	1,093	
Central Region	20,527	22,220	28,539	32,112	35,975	
Que.	9,144	11,022	13,691	14,355	17,484	
Ont.	11,383	11,198	14,848	17,757	18,491	
Western Region	4,598	7,255	8,516	9,446	11,120	
Man.	540	702	951	1,079	1,401	
Sask.	322	477	571	768	828	
Alta.	1,084	1,848	1,994	2,201	2,732	
B.C.	2,652	4,228	5,000	5,398	6,159	
Canada	25,863	30,470	38,244	42,887	48,751	

Source: Statistics Canada.

Peppers: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	2,292	8.9	3,912	9.2	3,834	3,714	4,077	4,617
Feb.	1,966	7.6	3,460	8.1	2,775	3,182	4,323	4,305
Mar.	2,400	9.3	3,633	8.5	3,155	3,994	4,076	4,509
Apr.	2,095	8.1	3,532	8.3	2,877	3,471	4,174	4,696
May	2,197	8.5	3,774	8.9	3,022	4,428	3,914	5,143
June	2,491	9.6	3,820	9.0	3,489	3,774	4,034	5,032
July	2,946	11.4	4,662	11.0	3,737	5,235	5,525	4,955
Aug.	1,485	5.7	2,630	6.2	3,222	2,238	3,221	2,322
Sept.	978	3.8	1,788	4.2	1,164	1,823	2,266	2,606
Oct.	1,943	7.5	3,215	7.6	2,312	3,969	4,027	4,320
Nov.	2,471	9.6	4,121	9.7	4,217	3,713	4,750	4,964
Dec.	2,599	10.0	3,933	9.3	4,439	3,347	4,365	4,562
Total	25,863	100.0	42,480	100.0	38,244	42,887	48,751	52,033

Source: Statistics Canada

Peppers: Percentage Distribution of Imports from United States and Mexico, by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Florida</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
- per cent -					
<u>1972</u>					
Atlantic Region	37.9	50.2	4.3	7.6	100.0
Central Region	11.0	56.9	10.8	21.3	100.0
Western Region	56.7	1.8	37.1	4.4	100.0
Canada	20.7	45.6	16.1	17.6	100.0
<u>1973</u>					
Atlantic Region	27.4	57.7	12.6	2.3	100.0
Central Region	9.2	49.6	16.1	25.1	100.0
Western Region	49.8	7.9	37.3	5.0	100.0
Canada	17.6	41.4	20.3	20.7	100.0
<u>1974</u>					
Atlantic Region	6.9	81.3	5.6	6.2	100.0
Central Region	6.1	50.7	12.5	30.7	100.0
Western Region	53.5	4.7	32.8	9.0	100.0
Canada	15.9	41.7	16.6	25.8	100.0

Source: Agriculture Canada.

Peppers: Weekly Wholesale to Retail Prices at Halifax and Montreal, 1974

Week Ending	Halifax			Montreal									
	Fla./Calif.		Calif.	Mex.		N.J.		Calif.	Tex.	Ont.		Que.	
	Green	Green	Red	Swt. Green	Swt. Green	Swt. Green	Hot Green	Swt. Green	Swt. Green	Green	Red	Green	Red
	- ctn. (30 lb.) -			bu. (30 lb.)		- ctn. (30 lb.)		- ctn. (30 lb.)		- bushel (30 lb.) -			
Jan. 4				25.8									
11				25.4									
18				24.2									
25				22.5									
Feb. 1				18.8									
8													
15				25.8									
22				30.8	37.5								
Mar. 1				22.5	25.4								
8				20.4	36.7								
15				21.3	34.2								
22		24.5	36.7	20.8	34.2								
29		28.7	40.0	20.8	34.2								
Apr. 5		30.8	40.0	24.2	28.3								
12		30.8	39.2	25.0	29.2								
19		30.8	50.0	26.7	28.3								
26		49.2		34.2	32.5								
May 3		49.2		32.5	34.2								
10		56.7		37.5	35.8								
17		55.0		40.8	34.2								
24		55.0		34.2	34.2								
31		48.3		32.5									
June 7		47.3		26.3									
14		41.7		25.4									
21		41.7		37.1									
28		41.7		37.5	45.8 (a)								

Peppers: Weekly Wholesale to Retail Prices at Halifax and Montreal, 1974

Week Ending	Halifax		Montreal									
	Fla./Calif. Green	Calif. Red	Fla. Swt. Green	Fla. Swt. Red	Mex. Swt. Green	N.J.		Calif. Swt. Green	Tex. Swt. Green	Ont.		Que. Green
	- ctn. (30 lb.) -	-	bu. (30 lb.)	bu. (30 lb.)	-	Swt. Green	Hot Green	-	-	Green	Red	Green (30 lb.) -
					- cents per pound -							
July 5	60.0		29.2	30.8(a)		25.8	27.9			18.3		18.3
12	39.7		25.8	27.9(a)		17.5	30.8			18.3		17.5
19	31.7		17.5	30.8(a)		15.8	23.3			17.5		13.8
26	23.3		15.8	23.3(a)		15.4	22.1			15.0		14.6
Aug. 2	25.3		15.8			17.9	23.8			15.8		16.7
9	23.3					19.6				15.8	20.4	14.2
16	30.0					17.1				15.4	22.1	11.7
23	33.3					13.8						10.8
30	32.3					13.3						10.8
Sept. 6	30.0					14.6						
13	26.7					17.1						
20	26.7					15.8						
27	26.7					15.8						
Oct. 4	26.7					16.3						
11	26.7					18.3						
18	28.0											
25	38.3											
Nov. 1	37.5											
8	41.7											
15	40.8											
22	25.0											
29	30.0											
Dec. 6	25.0											
13	30.0											
20	28.3											
26	31.7											

(a) Hot green.

(b) Sweet red.

Source: Agriculture Canada.

Peppers: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

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Appendix Table 8b

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Appendix Table 8b

Week Ending	Toronto					Winnipeg			Vancouver			
	Fla.		Calif.	Ont.		Calif.		Mex.	Mex./Calif. (f) B.C.			
	Green	Red	Green	Swt. Red	Swt. Yellow	Hot	Green	Red	Green	Red		
	- carton (30 lb.) -					- carton (30 lb.) -					-ctn. (1 lb.) (30 lb.)-	
Jan. 4	(a)											
11	25.4 (a)										45.0	
18	25.4 (a)										47.0	
25	24.2 (a)										40.0	
Feb. 1	20.4 (a)										34.0	
8											33.0	
15											33.0	
22											37.0	
Mar. 1											43.0	
8											38.0	
15											33.0	
22											31.0	
29											31.0	
Apr. 5											31.0	
12											31.0 (g)	
19	22.9 (a)					36.9					44.0 (g)	
26	24.2 (a)					38.3					37.0 (g)	
3	37.1 (b)					35.8					33.0 (h)	
10	39.2 (b)					39.0					38.0	
17	59.6 (b)					35.4					69.0	
24	40.8 (b)					36.2					66.0 (h)	
31	65.0 (b)					45.8					63.0 (h)	
June 7	65.0 (b)					48.2					48.0 (h)	
14	28.3 (b)					40.8					46.0	
21	24.6 (b)					35.0					48.0	
28	23.8					34.2					42.0	
July 5	54.2					43.3					42.0	
12	34.2					45.0					45.0	
19	39.6 (b)					41.7					40.0	
26	33.3 (b)					32.3					39.0	
	48.8					31.3						
	42.5											
	35.8											
	18.8											

Peppers: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto					Winnipeg				Vancouver		
	Fla.		Calif.		Ont.	Calif.		Mex.		Mex./Calif. (f) B.C.		
	Green	Red	Green	Red		Green	Red	Green	Red	Green	Red	
	- carton (30 lb.) -					- bushel (30 lb.) -					- ctn. (1 lb.) (30 lb.) -	
	- cents per pound -					- carton (30 lb.) -						
Aug. 2						18.8	27.5				39.0	
9						17.5	25.8				39.0	
16						14.8	21.7				37.0	
23						14.6	20.8				37.0	
30						15.8	21.3				35.0	
Sept. 6						12.9	22.9				35.0	
13						14.2	22.9				33.0	
20						14.2	21.3				33.0	
27						15.8					30.0	
Oct. 4						19.6					21.7	
11						22.1					22.5	
18						26.3					29.0	
25						30.4					30.0	
Nov. 1						23.3					30.0	
8						18.8					32.0	
15						17.9					35.0	
22						19.6					27.0	
29						21.3					37.0	
Dec. 6						20.0					37.0	
13						19.6					35.0	
20						20.0					35.0	
27						19.6					40.0	
											44.0	

(a) Mexico and Florida.
 (b) Texas and Florida.
 (c) Ontario and Manitoba.
 (d) Mexico and Texas.
 (e) Texas only.

(f) Jan. 4 to May 24 and Dec. 6 to 27, Mexico only, June 14 to Dec. 29, California only, prices for May 31, June 7 and Dec. 6 are for Mexico and California.
 (g) Includes Florida.
 (h) Includes Texas.

Source: Agriculture Canada.

Imported United States Peppers: Total Landed Cost; Cost f.o.b., Freight, Brokerage and Other Costs;
Cost of Duty, Toronto; Selected Data by Month, 1972-1974

Month of Shipment	1972				1973				1974			
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost		Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	
March	-	-	-	-	-	Florida	9.2	3.4	-	-	-	-
June	-	-	-	-	-	Calif. Texas	23.3 21.8	3.4 3.3	-	-	-	-
July	Calif. Florida	16.6 12.5	6.5 3.0	-	23.1 15.5	-	-	-	-	-	-	-
September	-	-	-	-	-	Calif. " "	15.2 13.3 6.7	3.4 4.2 4.7	-	-	18.6 17.5 11.4	-
October	Calif. " - -	13.8 15.7 - -	4.7 4.2 - -	1.0 - - -	19.5 19.9 - -	Calif. - - -	17.6 - - -	4.3 - - -	Calif. " " "	- - - -	13.9 14.8 16.4 22.7	4.1 4.5 5.1 5.3
November	Calif. " Texas	15.1 15.4 12.9	4.2 4.1 4.0	- - -	19.3 19.5 16.3	Calif. - -	19.9 - -	4.3 - -	- - -	- - -	24.2 - -	- - -

Source: Tariff Board survey.

Imported United States and Mexican Peppers: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Winnipeg and Vancouver; Selected Data by Month, 1974

Month of Shipment	Winnipeg					Vancouver				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
					- cents per pound					
June	-	-	-	-	-	Calif.	36.7	2.8	-	39.5
	-	-	-	-	-	"	26.7	3.1	-	29.8
July	Calif.	20.0	7.5	-	27.5	Calif.	15.0	3.1	-	18.1
	-	-	-	-	-	"	13.3	3.3	-	16.6
	-	-	-	-	-	"	17.5	3.5	-	21.0
August	Calif.	16.7	7.3	-	24.0	-	-	-	-	-
	"	30.0	4.4	-	34.4	-	-	-	-	-
	"	21.7	6.2	-	27.9	-	-	-	-	-
	"	31.7	4.2	-	35.9	-	-	-	-	-
October	Calif.	15.0	5.7	-	20.7	-	-	-	-	-
November	Calif.	25.3	6.3	-	31.7	-	-	-	-	-
	"	23.7	6.3	-	30.0	-	-	-	-	-
	Florida	15.8	5.3	-	21.1	-	-	-	-	-
December	Florida	18.3	4.2	-	22.5	-	-	-	-	-
	"	13.3	4.2	-	17.5	-	-	-	-	-
	"	16.7	4.1	-	20.8	-	-	-	-	-

Source: Tariff Board survey.

Appendix Table 10

Peppers: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by
States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Acreage -					
California		7,400	7,900	9,800	9,900	8,750
Florida		13,400	12,900	13,500	13,800	13,400
New Jersey		8,100	7,300	7,200	7,200	7,450
North Carolina		7,200	7,200	7,400	7,800	7,400
Texas		6,800	6,700	5,500	5,400	6,100
Other States		4,550	4,500	4,530	4,540	4,530
Total	49,268	47,450	46,500	47,930	48,640	47,630
	- Production, '000 lb. -					
California		125,800	165,900	172,100	192,300	164,025
Florida		111,900	141,700	152,500	168,400	143,625
New Jersey		48,600	41,600	47,300	48,900	46,600
North Carolina		30,200	28,800	32,600	32,800	31,100
Texas		47,300	52,800	42,100	50,200	48,100
Other States		34,200	28,200	27,200	30,500	30,025
Total	430,020	398,000	459,000	473,800	523,100	463,475
	- Average Yield, lb. -					
California		17,000	21,000	17,561	19,424	18,746
Florida		8,351	10,984	11,296	12,203	10,718
New Jersey		6,000	5,699	6,569	6,792	6,255
North Carolina		4,194	4,000	4,405	4,205	4,203
Texas		6,956	7,881	7,655	9,296	7,885
Other States		7,516	6,267	6,004	6,718	6,628
Total	8,728	8,388	9,871	9,885	10,755	9,731
	- Farm Value, \$'000 -					
California		11,501	13,978	15,913	20,393	15,446
Florida		18,436	23,603	27,595	31,828	25,366
New Jersey		3,617	5,270	5,709	5,538	5,034
North Carolina		3,503	3,053	3,619	3,641	3,454
Texas		8,534	8,642	8,935	10,182	9,073
Other States		3,668	3,673	3,968	4,439	3,937
Total	47,279	49,259	58,219	65,739	76,021	62,310
	- Farm Value, ¢ per lb. -					
California		9.1	8.4	9.2	10.6	9.4
Florida		16.5	16.7	18.1	18.9	17.7
New Jersey		7.4	12.7	12.1	11.3	10.8
North Carolina		11.6	10.6	11.1	11.1	11.1
Texas		18.0	16.4	21.2	20.3	18.9
Other States		10.7	13.0	14.6	14.6	13.1
Total	11.0	12.4	12.7	13.9	14.5	13.4

Source: U.S. Department of Agriculture.

Peppers: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year (a)	Maritime Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	-	-	-	-	-	-	Aug. 3	Sept. 28	56
1967	-	-	-	-	-	-	Aug. 4	Sept. 29	56
1968	-	-	-	July 31	Sept. 25	56	Aug. 9	Oct. 4	56
1969	-	-	-	Aug. 1	Sept. 22	52	Aug. 13	Oct. 8	56
1970	July 31	Sept. 10	41	July 31	Sept. 24	55	Aug. 6	Sept. 30	55
1971	-	-	-	July 30	Sept. 24	56	Aug. 6	Sept. 29	54
1972	Aug. 18	Oct. 14	57	Aug. 23	Oct. 19	57	Aug. 9	Oct. 5	57
1973	Aug. 17	Oct. 12	56	-	-	-	Aug. 10	Oct. 5	56
1974	Sept. 6	Oct. 31	55	-	-	-	-	-	-
1975	Aug. 29	Oct. 23	55	July 31	Sept. 24	55	Aug. 8	Oct. 2	55

(a) Government fiscal year commencing April 1st; ending March 31st of following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Peppers: Dutiable Imports and the Ad Valorem Equivalent of the M.F.N. Specific Duty, 1966-1975

Year	Imports			Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	% Dutiable '000 lb.			
1966	22,136	21,755	98.3	12.7	1.0	7.9
1967	23,747	21,877	92.1	8.6	1.0	11.6
1968	25,668	24,333	94.8	10.6	1.0	9.4
1969	29,909	27,794	92.9	11.2	1.0	8.9
1970	27,853	25,508	91.6	10.3	1.0	9.7
Average 1966-70	25,863	24,254	93.8	10.3	1.0	9.7
1971	30,470	28,126	92.3	10.2	1.0	9.8
1972	38,244	35,384	92.5	12.5	1.0	8.0
1973	42,887	41,021	95.6	15.5	1.0	6.5
1974	48,751	48,367	99.2	18.7	1.0	5.3
1975	52,033	47,519	91.3	18.0	1.0	5.6
Average 1971-75	42,477	40,083	94.4	14.8	1.0	6.8

Source: Statistics Canada.

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POTATOES

The potato (Solanum tuberosum) is the world's most important vegetable and is one of the few vegetables that originated in the Western Hemisphere. It is believed that the Andean region of South America is its native home, and the potato appears to have been cultivated in this area long before the first Europeans arrived.

Related species, particularly S. andigenum, are still grown in the Andean region of South America; the Board has no information that would indicate that these species are grown or marketed in Canada but, if such potatoes were imported, they would be classified as potatoes. Sweet potatoes (Impomeca batatus) have their own tariff items.

Three centuries ago the potato was scarcely known as a food crop in either Europe or America. The first recorded instance of potatoes being cultivated as a field crop was in Ireland in the mid 1600s. Today, its culture encircles the earth in both temperate zones. Climate is the main factor determining whether any region can be an important producer of potatoes. The potato is a cool weather crop requiring well-distributed moderate rainfall. Studies have shown that maximum yields are obtained with growing season temperatures averaging between 15.5°C and 18°C.

Potatoes are by far the most important vegetable crop grown in Canada. In 1973, farm cash receipts for all vegetables excluding potatoes was \$162.6 million; for potatoes it was \$160 million. The potato is commercially raised for fresh consumption from coast to coast. However, some three-quarters of total production is accounted for by four provinces: Prince Edward Island, New Brunswick, Quebec, and Ontario. In the last decade, potatoes have become a widely grown crop for all forms of processing, to the point where production for the fresh and processing markets are almost equal.

Per capita consumption of potatoes in Canada has declined somewhat in recent years, to an average of 154 pounds in 1971-74 from 166 pounds during 1966-70.

GROWING, HARVESTING AND MARKETING

The potato growing industry in Canada is as advanced as anywhere in the world. Mechanization, beginning with seeding, fertilizer application, spraying for diseases, insect and weed control, and on through to harvesting is well developed.

Potatoes are usually planted from late April to the middle of June depending upon local climatic conditions. Harvesting commences as early as the last week of June in south-western Ontario and continues in various localities into November. Marketing occurs through to May and in some cases until June. According to Agriculture Canada,⁽¹⁾ potatoes stored under good management should maintain good quality for eight months.

(1) Bulk Potato Storage, Agriculture Canada Publication 1508, 1973.

A number of factors are important in the growing and storage of potatoes, factors which contribute significantly to the cost of production. These include the use of certified disease-free seed rather than uncertified table stock; the demands of the crop with respect to fertilizers, herbicides and harvesting care; and careful frost-free storage at temperatures and humidities that retain a proper starch/sugar relationship and prevent sprouting and rot.

Planting in commercial operations is done mechanically. A potato planter may plant one, two or four rows simultaneously and, at the same time, apply bands of fertilizer to the side and slightly below the seed. During the growing season several cultivations may be required to control weeds; spraying operations for pest control are also required. Many types of mechanical harvesters are now being used to harvest more than 95 per cent of the crop in most of the important producing areas.

The growing and harvesting of seed potatoes and table potatoes, whether for the fresh market or for processing are in many respects similar. There are, however, a number of differences with respect to seed potatoes which add to their cost of production. In the first place, there is the higher cost of the original seed stock. In addition seed potatoes require certification by Agriculture Canada, which frequently results in an additional application of various chemicals for the control of disease. Disease control also calls for "roguing," a manual operation for removing diseased plants. Unlike some other vegetables, potatoes for processing and potatoes for the fresh market differ little in growing methods and field costs. A portion of the potato crop is marketed immediately upon harvesting. This would include all potatoes consumed or processed during the production period. Most potatoes, however, are moved directly from the field into storage, mostly farm storage. With respect to processing potatoes, the processor frequently uses public storage facilities. Before marketing, the grower sorts the stored potatoes to eliminate bruised and diseased stock; this shrinkage is estimated by Statistics Canada at 20 per cent of Canadian output. Processing potatoes are sold in bulk, usually to nearby plants. Farmers may also sell their fresh market potatoes in bulk to packing plants for consumer pre-packing. Not infrequently, large growers will do the packing themselves. Fresh market potatoes are marketed in 5-lb., 10-lb., 20-lb., 50-lb., and 75-lb. bags. Seed potatoes are normally sold in the larger-sized bags only.

The potato is a storable vegetable with the storage period running from the conclusion of the main harvesting period., i.e., September-October, to approximately late May. Although some domestic potatoes are stored beyond the end of May, such potatoes usually suffer deterioration in quality. In any event, the amount in storage beyond May is very small.

ACREAGE, YIELD, PRODUCTION AND FARM VALUE

The area devoted to potato production in Canada declined from an average of 290,360 acres in 1961-65 to 263,950 acres in 1971-74, (see Table 1). This decline was primarily attributable to a reduction in acreages in Ontario and Quebec. It should be noted that while the total Canadian acreage under potatoes increased in 1973 and 1974, it was still below the average for 1961-65.

Whereas the area under crop declined between 1961-65 and 1971-74, yields, as measured by pounds per acre, increased steadily from 15,854 pounds to 18,510 pounds - a rise of 16.8 per cent. On a provincial basis, yields during 1971-74 ranged from a low of 13,283 pounds in Manitoba to 22,667 pounds in British Columbia. Ontario was the only province where the average yield during 1971-74 was lower than that in 1961-65.

The steady improvement in yields per acre between 1961-65 and 1971-74 compensated for the decline in acreage with the result that total average Canadian production during this period increased from 4.60 billion pounds to 4.89 billion pounds. In 1974, the potato crop reached the record level of 5.51 billion pounds, an increase of 19.8 per cent over the average for 1961-65, despite a total acreage some 2.7 per cent below the 1961-65 level.

Average farm values per pound remained the same during the sixties. It was not until 1972 and 1973 that as a result of below average crops, the average return to the farmer increased. The high level of the 1974 crop, however, resulted in a sharp decline in average grower prices, from 5.2 cents in 1973 to 2.9 cents. This decline was particularly evident in Prince Edward Island and New Brunswick. The total farm value of the 1974 crop was some 44 per cent below that of the preceding year. Despite these year-to-year fluctuations in prices to the farmer the average for the period 1971-74 has been well above that of the 1960s which combined with the small increase in total output, has meant that the total farm value of Canadian potato production has grown from an average of \$94 million in 1961-65 to \$159 million in 1971-74, an increase of some 70 per cent.

Potatoes are grown commercially in all provinces; however, of 366,128 farms reporting in the 1971 Census, only 12,447 or approximately 3.5 per cent, produced potatoes for sale. As indicated in Table 2, the total acreage of cultivated land devoted to potato growing in 1971 was less than 1 per cent of the total acreage under crops. In terms of land use, potatoes are most important in the three provinces of New Brunswick, Prince Edward Island, and Newfoundland. In New Brunswick and Prince Edward Island potatoes account for 18.4 and 13.3 per cent of the total acreage under crops, respectively. Potatoes also account for a high proportion of total crop land in Newfoundland, but the 1,194 acres are commercially insignificant.

Table 1: Potatoes: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- Acreage -				
P.E.I.	42,040	51,420	46,800	39,000	42,000	52,000	44,950	+ 6.9
Nova Scotia	6,460	4,980	3,500	3,500	3,800	4,400	3,800	-41.2
New Brunswick	53,640	62,580	59,400	53,000	53,000	58,000	55,850	+ 4.1
Quebec	73,240	70,140	47,500	46,000	50,000	53,000	49,125	-32.9
Ontario	51,080	47,620	40,100	43,100	41,800	45,700	42,675	-16.5
Manitoba	21,260	27,900	32,700	22,000	30,000	35,000	29,925	+40.8
Saskatchewan	10,480	8,000	3,300	3,000	3,000	2,500	2,950	-71.9
Alberta	21,700	26,240	26,100	23,000	23,000	23,000	23,775	+ 9.6
B.C.	10,460	10,480	9,100	11,500	14,000	9,000	10,900	+ 4.2
Canada	290,360	309,360	268,500	244,100	260,600	282,600	263,950	- 9.1
				- Production, '000 lb. -				
P.E.I.	781,960	1,048,220	933,200	874,000	955,300	1,240,000	1,000,625	+28.0
Nova Scotia	87,760	72,180	56,000	59,700	55,700	63,800	58,800	-33.0
New Brunswick	1,091,400	1,342,880	1,397,100	1,214,600	1,025,600	1,376,100	1,253,350	+14.8
Quebec	913,280	845,240	641,200	500,500	727,500	842,500	677,925	-25.8
Ontario	982,360	896,260	797,200	782,300	726,500	859,200	791,300	-19.4
Manitoba	211,700	329,240	410,000	250,000	440,000	490,000	397,500	+87.8
Saskatchewan	71,760	67,360	33,000	47,500	58,000	38,000	44,125	-38.5
Alberta	265,480	412,140	400,000	410,000	450,000	400,000	415,000	+56.3
B.C.	197,620	211,380	213,300	250,000	320,000	205,000	247,075	+25.0
Canada	4,603,320	5,224,900	4,881,000	4,388,600	4,758,600	5,514,600	4,885,700	+ 6.1

Table 1: Potatoes: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974 (cont.)

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
			- Average Yield, lb. -					
P.E.I.	18,600	20,385	19,940	22,410	22,745	23,846	22,235	+ 19.5
Nova Scotia	13,585	14,494	16,000	17,057	14,658	14,500	15,474	+ 13.9
New Brunswick	20,347	21,459	23,520	22,917	19,351	23,726	22,441	+ 10.3
Quebec	12,470	12,051	13,499	10,880	14,550	15,896	13,800	+ 10.7
Ontario	19,232	18,821	19,880	18,151	17,380	18,801	18,542	- 3.6
Manitoba	9,958	11,801	12,538	11,364	14,667	14,000	13,283	+ 33.4
Saskatchewan	6,847	8,420	10,000	15,833	19,333	15,200	14,958	+118.5
Alberta	12,234	15,707	15,326	17,826	19,565	17,391	17,455	+ 42.7
B.C.	18,893	20,170	23,440	21,739	22,857	22,778	22,667	+ 20.0
Canada	15,854	16,889	18,179	17,979	18,260	19,514	18,510	+ 16.8
			- Farm Value, \$'000 -					
P.E.I.	14,611	12,402	10,701	28,145	51,193	28,024	29,516	+102.0
Nova Scotia	1,906	1,387	1,176	1,910	3,231	1,818	2,034	+ 6.7
New Brunswick	19,094	15,718	15,342	39,702	53,573	29,311	34,482	+ 80.6
Quebec	17,850	16,938	12,183	17,017	42,050	29,824	25,269	+ 41.6
Ontario	21,689	20,410	22,481	32,857	40,829	26,635	30,701	+ 41.6
Manitoba	4,424	6,012	7,257	7,500	9,240	19,061	10,765	+143.3
Saskatchewan	1,715	1,809	792	1,662	3,190	1,144	1,697	- 1.0
Alberta	6,715	10,857	7,200	11,275	23,490	13,160	13,781	+105.2
B.C.	5,945	6,630	6,186	9,375	19,840	9,430	11,208	+ 88.2
Canada	93,949	92,164	83,318	149,443	246,636	158,407	159,451	+ 69.7

Table 1: Potatoes: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, by Province, 1961-1974 (concl.)

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
	- Farm Value, ¢ per lb. -							
P.E.I.	1.9	1.2	1.1	3.2	5.4	2.3	2.9	+52.6
Nova Scotia	2.2	1.9	2.1	3.2	5.8	2.8	3.5	+59.1
New Brunswick	1.7	1.2	1.1	3.3	5.2	2.1	2.8	+64.7
Quebec	2.0	2.0	1.9	3.4	5.8	3.5	3.7	+85.0
Ontario	2.2	2.3	2.8	4.2	5.6	3.1	3.9	+77.3
Manitoba	2.1	1.8	1.8	3.0	2.1	3.9	2.7	+28.6
Saskatchewan	2.4	2.7	2.4	3.5	5.5	3.0	3.8	+58.3
Alberta	2.5	2.6	1.8	2.8	5.2	3.3	3.3	+32.0
B.C.	3.0	3.1	2.9	3.8	6.2	4.6	4.5	+50.0
Canada	2.0	1.8	1.7	3.4	5.2	2.9	3.3	+65.0

Source: Statistics Canada.

Table 2: Potatoes: Acreage as a Percentage of Total Acreage
Under Crops, by Province, 1971

Province	Total Acreage Under Crops - acres -	Total Potato Area	Potatoes, as Per Cent of Total Acreage Under Crops - % -	Potatoes, Per Cent of Total Canadian Potato Acreage -
Nfld.	8,698	1,194	13.7	0.4
P.E.I.	351,199	46,752	13.3	17.3
N.S.	224,226	3,487	1.4	1.3
N.B.	322,261	59,421	18.4	22.0
Que.	4,336,252	47,535	1.1	17.6
Ont.	7,854,585	40,055	0.5	14.9
Man.	9,124,994	32,678	0.4	12.1
Sask.	27,341,459	3,255	*	1.2
Alta.	18,093,388	26,139	0.1	9.7
B.C.	1,092,637	9,083	0.8	3.4
Canada (a)	68,768,108	269,619	0.4	100.0

(a) Includes data for Yukon and Northwest Territories.

Source: Census of Canada, 1971.

Table 3: Potatoes: Farm Value as a Percentage of Total Farm
Cash Receipts and of Cash Receipts from
Field Crops, 1973

Province	Total Farm Cash Receipts	Field Crop Receipts - \$'000 -	Potato Receipts	Potatoes, Per Cent of Total Farm Cash Receipts - % -	Potatoes Per Cent of Provincial Field Crop Receipts -
P.E.I.	71,923	37,370	31,262	43.5	83.7
N.S.	95,659	21,360	2,345	2.5	11.0
N.B.	95,546	47,376	39,458	41.3	83.3
Que.	978,649	99,404	22,404	2.3	22.5
Ont.	1,971,254	619,063	30,805	1.6	5.0
Man.	618,444	282,905	6,740	1.1	2.4
Sask.	1,467,685	1,006,574	524	*	0.1
Alta.	1,205,599	445,038	14,709	1.2	3.3
B.C.	335,170	113,609	11,722	3.5	10.3
Canada	6,839,929	2,672,699	159,969	2.3	6.0

Source: Statistics Canada.

In 1973, 72 per cent of Canadian potato acreage and production was accounted for by four provinces: Prince Edward Island with 16.1 per cent of acreage and 20.1 per cent of production, New Brunswick 20.3 and 21.6 per cent, Quebec 19.2 and 15.3 per cent, and Ontario 16.0 and 15.3 per cent. However, in terms of total farm cash receipts and of cash receipts from all crops the potato crop was immensely more important to Prince Edward Island and New Brunswick than to the other two provinces (see Table 3). In the two Maritime Provinces potatoes represented in 1973 approximately 83 per cent of field crop receipts and over 40 per cent of total farm cash receipts, whereas in Quebec and Ontario the corresponding figures were respectively 22.5 and 2.3 per cent and 5.0 and 1.6 per cent.

In western Canada, Manitoba possessed the largest potato acreage, amounting to 35,000 acres in 1974, which, as for all western provinces, accounted for less than 1 per cent of all crop land. In terms of income the importance of potatoes is somewhat greater, but even then its significance is limited. In British Columbia they accounted for only 3.5 per cent of total farm receipts.

SUPPLY AND DISPOSITION

The data on the supply and disposition of potatoes in Tables 4a and 4b are basically those reported by Statistics Canada. Imports and exports of processed potatoes in fresh equivalent weight were calculated by the Board. Fresh potato imports for processing were estimated for the years 1961-62 to 1972-73 as comprising 5 per cent of all potatoes utilized by processors. However, in 1973-74 and 1974-75 amounts of 90 million and 70 million pounds respectively were added to the normal 5 per cent to reflect the unusually high imports of fresh potatoes into the Atlantic region in those years (see Appendix Table 9). The total supply available for processing was estimated at 1.5 billion pounds for 1974-75, an increase of 5 per cent over the previous year.

Of the annual average of 4.89 billion pounds of potatoes produced in Canada during 1971-74, approximately 1.87 billion pounds or 38.4 per cent was for domestic fresh market consumption, 1.20 billion pounds, 24.6 per cent was consumed in processed form, 0.34 billion pounds, or 7.1 per cent, was exported, .49 billion pounds, or 10 per cent, was used for seed, and the remaining .98 billion pounds and 20 per cent represented shrinkage (see Appendix Table 1 for supply and disposition ratios). This utilization pattern is markedly different from that of 1961-65 when fresh consumption and exports were relatively much more important, 48.1 and 9.2 per cent respectively, and consumption in processed form much less, only 10.5 per cent.

Total domestic disappearance of all potatoes in Canada amounted to 4.89 billion pounds during the period 1971-74 consisting of 4.54 billion pounds, or 92.9 per cent, produced domestically, and 349 million pounds, or 7.1 per cent of imports. Compared to the period 1961-65 domestic disappearance increased by 10.2 per cent while production increased by only 6.1 per cent. This was due to a

Table 4a: Potatoes: Supply and Disposition, Imports and Exports, Crop Years, 1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
			-	'000 lb.	-		
<u>Domestic Production</u>							
Shrinkage(a)	4,603,320	5,224,900	4,881,000	4,388,600	4,758,600	5,514,600	4,885,700
Processed	920,664	1,044,980	976,200	877,720	951,720	1,102,920	977,140
Seed	498,740	1,042,038	1,316,083	1,267,656	1,177,575	1,294,823	1,264,034
Fresh	803,193	851,776	662,847	733,969	696,289	634,441	681,887
	2,380,723	2,286,106	1,925,870	1,509,255	1,933,016	2,482,416	1,962,639
<u>Total Fresh Imports</u>	174,533	207,253	205,717	266,041	292,886	329,635	273,570
Shrinkage(b)	26,180	31,088	30,858	39,906	43,933	49,445	41,036
For processing	26,249	54,844	69,268	66,719	156,719	138,149	107,713
Fresh market	122,104	121,321	105,591	159,416	92,234	142,041	124,821
<u>Total Seed Imports</u>	8,158	8,377	7,554	8,620	8,765	11,372	9,078
Shrinkage(c)	1,224	1,257	1,133	1,293	1,315	1,706	1,362
Net seed imports	6,934	7,120	6,421	7,327	7,450	9,666	7,716
<u>Processed Imports</u>	72,659	114,259	45,742	59,899	94,479	67,028	66,787
<u>Total Exports</u>	422,211	445,865	278,909	351,401	348,068	399,648	344,508
Fresh	167,007	115,960	65,820	82,967	102,769	102,510	88,517
Seed	224,127	260,296	181,068	220,096	201,359	180,247	195,693
Processed	31,077	69,609	32,021	48,338	43,940	116,891	60,298

(a) Twenty per cent of total production.

(b) Fifteen per cent of total fresh imports.

(c) Fifteen per cent of total seed imports.

Source: Derived from Statistics Canada and Agriculture Canada data.

Table 4b: Potatoes: Domestic Disappearance, Fresh Market, Seed Potatoes, Processing Potatoes; Crop Years, 1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
				- '000 lb.			
Fresh Market							
Domestic production	2,380,723	2,286,106	1,925,870	1,509,255	1,933,016	2,482,416	1,962,639
Imported	122,104	121,321	105,591	159,416	92,234	142,041	124,821
Fresh supply available	2,502,827	2,407,427	2,031,461	1,668,671	2,025,250	2,624,457	2,087,460
Fresh exports	167,007	115,960	65,820	82,967	102,769	102,510	88,517
Fresh domestic disappearance	2,335,820	2,291,467	1,965,641	1,585,704	1,922,481	2,521,947	1,998,943
Seed Market							
Domestic production	803,193	851,776	662,847	733,969	696,289	634,441	681,887
Imported	6,934	7,120	6,421	7,327	7,450	9,666	7,716
Seed supply available	810,127	858,896	669,268	741,296	703,739	644,107	689,603
Seed exports	224,127	260,296	181,068	220,096	201,359	180,247	195,693
Seed domestic disappearance	586,000	598,600	488,200	521,200	502,380	463,860	493,910
Processing Market							
Domestic production	498,740	1,042,038	1,316,083	1,267,656	1,177,575	1,294,823	1,264,034
Imported fresh	26,249	54,844	69,268	66,719	156,719	138,149	107,713
Total to be Processed	524,989	1,096,882	1,385,351	1,334,375	1,334,294	1,432,972	1,371,747
Imported processed	72,659	114,259	45,742	59,899	94,479	67,028	66,787
Processed supply available	597,648	1,211,141	1,431,093	1,394,274	1,428,773	1,500,000	1,438,534
Processed exports	31,077	69,609	32,021	48,338	43,940	116,891	60,298
Processed domestic disappearance	566,571	1,141,532	1,399,072	1,345,936	1,384,833	1,383,109	1,378,236
Shrinkage(a)							
From domestic production	920,664	1,044,980	976,200	877,720	951,720	1,102,920	977,140
From fresh imports	26,180	31,088	30,858	39,906	43,933	49,445	41,036
From seed imports	1,224	1,257	1,133	1,293	1,315	1,706	1,362
Total Shrinkage	948,068	1,077,325	1,008,191	918,919	996,968	1,154,071	1,019,538

(a) Twenty per cent of total domestic production; 15 per cent of total fresh and seed imports.

Source: Derived from Statistics Canada and Agriculture Canada.

relative decline in exports, from 9.2 per cent of production to 7.1 per cent, and a relative rise in imports from 5.8 per cent of domestic disappearance to 7.1 per cent. The share of the overall domestic market held by Canadian growers is still well over 90 per cent but has been declining. Consumption of processed potatoes increased its share of the market from 12.8 per cent to 28.2 per cent, while consumption of fresh market potatoes diminished in importance from 52.6 per cent to 40.9 per cent. Total consumption, on a per capita basis, has on average declined during the 1970s, indicating that growth in consumption is dependent on growth in population. Per capita consumption of processed potatoes has increased and that of fresh market potatoes has diminished.

Production of seed potatoes averaged 682 million pounds during 1971-74 of which 196 million pounds were exported and 486 million pounds were used domestically. Production of seed potatoes dropped by 15 per cent from the average level of 803 million pounds in 1961-65; exports of seed potatoes declined over this period from 224 million pounds, as did domestic use, from 586 million pounds. Imports of seed potatoes have risen since 1961-65, but, at an average level of 9.1 million pounds during 1971-74, represented less than 2 per cent of total Canadian usage of seed potatoes.

During the period under review the utilization of potatoes for processing and the consumption of potatoes in the processed form has more than doubled. Processing of potatoes in Canada rose from an average of 525 million pounds in 1961-65 to 1.37 billion pounds in 1971-74. Domestic production of potatoes for processing increased rapidly as well, by some 150 per cent, but imports of fresh potatoes for processing rose at an even faster pace. Canadian processors purchased as much as 12 and 10 per cent of their total requirements in 1973-74 and 1974-75 from foreign suppliers, compared with an estimated 5 per cent in 1972-73. Consumption of potatoes in the processed form increased by 143.3 per cent from 567 million pounds during 1961-65 to 1.4 billion pounds in 1971-74. The share of this market supplied by processed imports, in fresh equivalent weight, has declined steadily from 12.8 per cent during 1961-65, to 10.0 per cent in 1966-70 and to 4.8 per cent in 1971-74. Canadian growers have lost ground in the Canadian market for processing potatoes not because of increasing import competition from already processed potatoes but rather due to greater competition from fresh potatoes imported for processing.

Total consumption of fresh market potatoes has dropped by 14.4 per cent, from 2.3 billion pounds in 1961-65 to an average of 2 billion pounds in 1971-74. Domestic growers supply the bulk of this large, but declining market, although their share has been reduced somewhat from 94.8 to 93.8 per cent. It should be noted that the 6.2 per cent import penetration during 1971-74, as against the lower 5.2 per cent during 1961-65, was influenced by the relatively high imports during the poor 1972 crop. Furthermore, as shown in Appendix Table 2 imports of fresh potatoes have increased their share of the market particularly during the months of July and August when apparently supplies of the old stock are running out and offerings of new potatoes are unavailable or inadequate. During the months of September through April imports supply less than 3 per cent of the market.

Except for the Maritime Provinces the consumption or disposition of potatoes in the fresh market tends to occur within the province in which they are grown. Information collected by the Board (based on unload data) indicated, for example, that 81 per cent of the fresh market consumption of domestic potatoes in British Columbia in 1974 were of British Columbia origin; the remaining 19 per cent were from Alberta. In Manitoba, 97 per cent of the domestic potatoes for the fresh market were grown in Manitoba. On the other hand, there was a considerable movement of potatoes for the domestic market out of the Maritimes to Quebec and Ontario but not beyond the Ontario-Manitoba border. In Quebec, in 1974, some 70 per cent of the supply of domestic potatoes for the fresh market originated in Prince Edward Island and New Brunswick; for Ontario from the same two sources the corresponding figure was 72 per cent. This movement of potatoes from the Maritimes to the central region (Ontario and Quebec) is in contrast to the trend of shipments of all other major vegetable crops, which tend to move from central Canada to the Maritimes.

IMPORTS AND EXPORTS

Canada imported an average of 9.1 million pounds of seed potatoes during the period 1971-74, less than 2 per cent of its total seed requirements. For phytosanitary reasons imports of seed potatoes come exclusively from the United States. Imports are concentrated in the months of March to June inclusive, or just prior to, and during, the domestic planting season (as illustrated in Appendix Table 6). Over 70 per cent of all seed potato imports in 1974 entered western Canada, equally divided in that year between Manitoba and British Columbia, (see Appendix Table 5). Part of the explanation for the greater dependence of western, especially Manitoba, growers on imported seed potatoes is that seed for red-skinned varieties, in demand in that province, are not generally available elsewhere in Canada. Imports into that province have been declining, however, while imports of seed potatoes into British Columbia and New Brunswick have increased.

Exports of seed potatoes, on a crop year basis, averaged 195.7 million pounds, down from 223.8 million pounds in 1961-65, and 260.3 million pounds in 1966-70.⁽¹⁾ Exports are concentrated in the five-month period November to March. Principal markets for Canadian seed potatoes are the United States, Greece, Cuba, Venezuela, and Uruguay. The United States has been Canada's largest customer of seed potatoes; it took 40.6 per cent of all exports in 1974. As shown in Table 5, Canada is a substantial net exporter of seed potatoes, but the export surplus has been diminishing. Canada is the major exporter of seed potatoes to the United States; small volumes have also been imported into that country from Mexico and Guyana.

The Atlantic Provinces, especially New Brunswick, account for most of Canada's exports of seed potatoes. In calendar year 1974, this region exported 147.6 million pounds or 83 per cent of the Canadian total.

(1) Data pertaining to exports of seed potatoes can be found in Appendix Tables 11, 12, and 13.

Imports of fresh potatoes other than seed potatoes have increased from an average of 174.5 million pounds during the period 1961-65 to an average of 273.6 million pounds in 1971-74. June and July are the two months of largest imports. At this time of the year the quality and quantity of the "old" stock of potatoes are diminishing and the Canadian consumer, unable to buy early domestic new potatoes, purchases the imported varieties. Lately imports during other months of the year have increased as well; this reflects the shipments of potatoes for processing, which were brought in on a more regular basis.

The central region (Ontario and Quebec) and the western region have traditionally accounted for most of the imports of fresh table potatoes. Imports of processing potatoes into New Brunswick have, however, greatly increased Atlantic region imports.

Canadian imports of fresh potatoes come almost entirely from the United States. In 1974, for the first time during the period under study, a small volume was brought in from the United Kingdom. Based on information with respect to unloads of imported potatoes, (see Appendix Table 10), California is the largest exporter of fresh market potatoes to Canada, with Virginia ranking next; the latter is the major source of Atlantic and central region imports. It is evident that the major producing states, namely Idaho, Washington, Maine, North Dakota, and Minnesota, which have marketing seasons substantially the same as Canada, are not the most important suppliers of fresh market potatoes. This substantiates the earlier view that most imports of fresh market potatoes are early new potatoes. Imported fresh processing potatoes come primarily from Maine.

It should be noted that western Canadian producers face particularly acute competitive pressure in the marketing of potatoes. While comparatively high yield producers, they do not nearly attain the levels achieved by producers in the neighbouring State of Washington, with resultant significant disparities in production costs and prices. The problem of potato imports into western Canada, which have risen significantly, is exacerbated by reason of product differentiation by Washington State producers, who have segregated larger-sized baking potatoes. These are sold at premium prices in the United States while the smaller potatoes or "strippers" are sold at lower prices. Canadian potatoes are not marketed as to weight but rather as to minimum size. Thus, "strippers" weighing a maximum of 7 ounces each can meet the grade requirements of a minimum diameter of 2 inches for Canada No. 1 long potatoes. Because of these grading differences imported "strippers," a low price product in the United States, compete effectively with Canada No. 1 potatoes.

In the absence of any corrective action, this "stripper" problem will persist. In any event, the basic difference in productivity between these two contiguous areas is likely to result in continuing market difficulties particularly in the light of the sizable increases in acreage which have occurred in Washington during the past five years.

Exports of fresh table potatoes show a declining trend; they averaged 167.0 million pounds during 1961-65, 116 million pounds during 1966-70 and 88.5 million pounds during 1971-74. The drop in export sales was entirely the result of a contraction in markets other than the United States, which has since 1972 become our major market (see Appendix Table 16). The loss of other export markets may be the result of the generally higher potato prices in recent years as well as increased competition in traditional Canadian markets. The Atlantic region has always been the largest exporter of fresh table potatoes; the recent loss of overseas markets has particularly affected this region's exports. The high level of exports to the United States in 1974 reflected increased shipments from all regions but especially from the central and western regions, which have a better chance to enter the U.S. market at lower tariff rates because of earlier harvesting.

Trade in processed potatoes, in fresh equivalent weight, as shown in Table 5, indicates an increase in exports and a modest decline in imports. As a result a deficit averaging 41.6 million pounds in 1961-65 dropped to 6.5 million pounds in 1971-74. The Canadian trade balance on all potatoes has, however, deteriorated; an export surplus averaging 166.8 million pounds during the years 1961-65 turned into an average import deficit of 4.9 million pounds during 1971-74.

Table 5: Potatoes: Balance of Trade, Crop Years, 1961-65, 1971-72 to 1974-75

	Average 1961-65	1971-72	1972-73	1973-74	1974-75	Average 1971-74
	- million lb. -					
<u>Fresh</u> ^(a)						
Exp. ^(b)	167.0	65.8	83.0	102.8	102.5	88.5
Imp.	174.5	205.7	266.0	292.9	329.6	273.6
Bal.	(7.5)	(139.9)	(183.0)	(190.1)	(227.1)	(185.1)
<u>Processed (Fresh Equivalent)</u>						
Exp. ^(b)	31.1	32.0	48.3	43.9	116.9	60.3
Imp.	72.7	45.7	59.9	94.5	67.0	66.8
Bal.	(41.6)	(13.7)	(11.6)	(50.6)	49.9	(6.5)
<u>Seed</u>						
Exp. ^(b)	224.1	181.1	220.1	201.4	180.2	195.7
Imp.	8.2	7.6	8.6	8.8	11.4	9.1
Bal.	215.9	173.5	211.5	192.6	168.8	186.6
<u>Total</u>						
Exp. ^(b)	422.2	278.9	351.4	348.1	399.6	344.5
Imp.	255.4	259.0	334.6	396.1	408.0	349.4
Bal.	166.8	19.9	16.8	(48.0)	(8.4)	(4.9)

(a) Includes imports for fresh market and fresh potatoes for processing.

(b) Includes re-exports.

Source: Tables 4a and 4b.

PRICES

The average farm value per pound of all potatoes grown in Canada has, as shown in Table 1, risen markedly in recent years, from an annual average of 1.8 cents during 1966-70 to 3.3 cents in 1971-74. The 1973 crop saw an all time high of 5.2 cents per pound. Overproduction, both in Canada and the United States, arising from the record 1974 crop, resulted in a sharp drop in farm values for that year to 2.9 cents per pound. However, the farm value recovered in 1975 to 5.2 cents per pound.

The Board was unable to obtain a breakdown of this average annual return to the grower for all potatoes between seed potatoes, fresh table potatoes, and processing potatoes. It was noted earlier that on a field-run basis the cost of producing seed potatoes is somewhat higher than that for potatoes for the fresh market or processing potatoes. This would mean that, in the long run, in order to realize a similar return to the grower for labour and management for both seed potatoes and table potatoes, that the average price to the grower for seed potatoes would also have to be somewhat higher.

Prices to the grower fluctuate during the marketing season, especially those for fresh market table potatoes; data with respect to such seasonal fluctuation, comparable to the figures for average farm value per pound, were not available. Evidence indicates that prices at the beginning of the crop year, for early new potatoes, are relatively high. As the crop is harvested in increasing quantities, farm returns drop and level out. As marketing from storage commences, and as storage costs and shrinkage losses mount, returns to the farmer tend to increase, the extent of such an increase depending on general supply-demand conditions.

The returns to the grower for processing potatoes are normally determined by contract. Processing potatoes are normally sold field-graded, f.o.b. or delivered, with delivery either at the company warehouse or at a public storage facility. Sample information obtained by the Board suggests that farmers received about \$3.00 a hundredweight for processing potatoes for 1974-75. Imports of fresh potatoes into New Brunswick during the crop year 1973-74, believed to be almost entirely processing potatoes, averaged \$3.50 per hundredweight, substantially below the average farm value of \$5.20 for growers in New Brunswick in that year.

For the purpose of comparing the price of imported fresh market potatoes with the domestic product, the Board examined 1974 weekly wholesale-to-retail prices on the Halifax, Montreal, Toronto, Winnipeg, and Vancouver markets; these are summarized in Table 6. More detailed weekly wholesale quotations are presented in Appendix Tables 17a and 17b. It is readily apparent that the wholesale price of domestic fresh market potatoes is well above the average farm value. This is because the wholesale price, in addition to the wholesaler's mark-up, also includes the cost of packaging and packaging materials, freight and miscellaneous other costs. Furthermore, the price of domestic potatoes follows the month-to-month pattern outlined above in each of the five markets, i.e., relatively high prices for early new potatoes in June and July, sharply lower prices during the peak production months, followed by rising prices during the storage season.

Table 6: Average Wholesale to Retail Monthly Selling Prices for Domestic and Imported Potatoes in Halifax, Montreal, Toronto, Winnipeg, Vancouver, 1974

Month	Halifax		Montreal		Toronto		Winnipeg		Vancouver	
	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.
Jan.	7.2	-	7.2	-	8.0	14.1	7.5	-	9.4	8.7
Feb.	9.0	-	8.5	-	9.0	13.8	8.8	-	11.8	11.1
Mar.	10.5	15.8	10.0	-	10.3	15.0	10.2	-	12.6	11.9
Apr.	11.7	-	11.2	-	11.5	19.1	11.0	19.8	12.6	13.4
May	13.0	23.3	12.3	18.0	12.8	16.1	12.0	21.7	-	16.3
June	13.2	17.3	11.3	12.0	12.9	12.8	9.4	15.1	-	-
July	11.7	13.4	8.8	9.0	6.8	10.3	9.3	10.6	-	-
Aug.	7.8	10.5	4.2	8.1	5.9	9.8	5.5	7.9	-	-
Sept.	5.4	-	3.7	-	5.2	-	5.6	6.8	-	-
Oct.	5.4	-	4.9	-	5.4	-	6.4	-	6.8	7.4
Nov.	5.3	-	4.5	-	5.1	-	6.4	-	8.1	7.9
Dec.	4.6	-	4.1	-	4.3	-	5.6	-	8.2	7.7

Source: Appendix Tables 17a and 17b.

Quotations for imported fresh market potatoes are, as would be expected, not available on a year-round basis because the volumes of such imports are not sufficient to establish them during the heart of the Canadian marketing period. Available price information indicates that, generally speaking, wholesale prices of imported potatoes are higher than for domestic potatoes. This reflects the fact that imports are mostly new potatoes. This differential in perceived quality and price would appear to increase as the end of the marketing season approaches in May. After domestic new potatoes appear on the market, the wholesale price of imports drops rapidly, to a level competitive with the domestic product, as on the Vancouver market, or imports disappear effectively from the market.

The data on the landed cost of imported fresh potatoes, and its breakdown into the cost of such imports f.o.b., the cost of freight, brokerage, etc., and the cost of duty, are presented in Table 7 and Appendix Tables 18a and 18b. The cost of freight, brokerage and other transportation charges is much greater than the cost of the duty. Freight and other costs provide more protection against imports for growers supplying local or regional markets than does the duty; for growers shipping interregionally, who must incur considerable transportation costs themselves, the duty is the main source of protection. This applies particularly to growers in the Atlantic region, who ship a very large proportion of their potato crop into central Canada.

Table 7: Average Landed Cost of Imported Potatoes in Toronto, Montreal, Winnipeg, and Vancouver, 1972-1974

		<u>Cost</u> <u>f.o.b.</u>	<u>Freight,</u> <u>Brokerage,</u> <u>etc.</u>	<u>Duty</u>	<u>Total</u> <u>Landed Cost</u>
- range in ¢ per lb. -					
Toronto	1972	2.6- 4.6	1.4-3.0	0.4	5.3- 7.7
	1973	6.6- 9.7	1.5-3.0	0.4	8.7-11.9
	1974	6.5-13.0	2.6-2.9	0.4	9.8-16.3
Montreal	1974	6.0- 9.2	1.7-4.1	0.4	8.4-12.8
Winnipeg	1974	6.3-19.5	2.3-4.1	0.4	9.0-22.4
Vancouver	1974	4.0-16.0	0.9-6.3	0.4	5.3-18.8

Source: Appendix Tables 18a and 18b.

CANADA-UNITED STATES COMPARISONS

Potato output in the United States reached a record 34.2 billion pounds in 1974. Canadian production in the same year - also a record - was 5.5 billion pounds. While production in Canada was only about a seventh of U.S. potato production, on a per capita basis it was much greater, 246 as against 164 pounds. Comparing the periods 1966-70 and 1971-74 average annual production in the United States has increased from 30.9 to 31.4 billion pounds, or by 1.6 per cent, while that in Canada declined by 6.5 per cent. Processing accounts for a much larger proportion of potato production in the United States than in Canada; in 1971 and 1972 about 44 per cent as against 28 per cent.

In a previous report,⁽¹⁾ the Board made a number of observations concerning commercial potato production in the United States in the early 1950s vis-à-vis such production in Canada. At that time the Board stated that U.S. growers achieved greater yields per acre. For the period 1971-74, the average U.S. yield was 23,523 pounds per acre (which includes the State of Washington's rather remarkable 41,410 pounds); this represents an increase of 8.7 per cent over the average 1966-70 yield. During 1971-74, Canada's average yield was 18,510 pounds. Although this was a 9.6 per cent improvement over the average yield for 1967-70, it was still 27 per cent below the U.S. average.

The average 1971-74 yield of 22,361 pounds in the major producing provinces of New Brunswick and Prince Edward Island is a more favourable 90 per cent of the yield obtained in Maine, 24,755 pounds, traditionally the most important source of competition for those two provinces. At the same time, there is a marked disparity between British Columbia's 22,667 pounds and neighbouring Washington's 41,410 pounds.

The Board at that time further noted that the greater U.S. yields were achieved with less labour because of greater mechanization. However, a report prepared for the Board with respect to this Reference states that "the potato industry in Canada is as advanced as anywhere in the world. Mechanization, beginning with seeding, fertilizer banding, spraying for disease, insects, and weeds, on through to harvesting ... is next to none."

Although the degree of mechanization is probably now as great as in the United States, it would appear probable that the initial purchase costs and operating expenditures associated with mechanical equipment are less per unit of production (acre, pound, bushel) in the United States, due to what appears to be substantially larger individual potato farms in the United States.

The existence of larger farms in potato production in the United States was also noted in the Tariff Board's 1955 report on potatoes. According to the U.S. Department of Agriculture's Census of Agriculture, there were, in 1949, a total of 13,079 potato farms with 25 acres or more. These larger farms represented 2 per cent of total commercial potato growers and accounted for 53 per cent of the

(1) Tariff Board Report on Reference No. 117 - Potatoes, Queen's Printer, Ottawa, 1955, p. 20.

total harvested potato acreage. The growing concentration of production into larger farm units is well illustrated by similar data for 1969 when the 10,614 farms with 25 or more acres, or 9.8 per cent of total potato farms, were responsible for 91 per cent of the total harvested potato acreage. A direct comparison by year and farm size with Canada is not possible due to different reporting years and a different breakdown by farm size; however, the data for 1966 serves to illustrate that production is far less concentrated on larger farms in Canada. In that year, there were 3,337 farms reported to have 17.4 or more acres under potatoes and these represented 2 per cent of total farms and 61 per cent of total acreage. And while this constituted a significant improvement over the 2,415 potato growers in that size group in 1956, and further improvements in this respect have, no doubt, taken place since that time, it would appear that Canadian potato production, relative to the U.S. industry, continues to be marked by farms of smaller average size.

The Board has been advised that in the State of Washington, in 1976, some 85 per cent of the growers have farms ranging from 500 to 800 acres, each; the remaining 15 per cent have 1,000 acres or more, while two of these large grower-processors have some 15,000 acres between them.

Finally, it was observed that in the early 1950s, U.S. producers grew potatoes at a lower cost than Canadian growers. In most instances this continues to be so. Many growing regions in the United States have the cost advantages associated with producing more than one crop per year; however, this does not apply to Maine, Idaho, Washington, and North Dakota, which, like Canada, have one crop only. Economies of scale resulting from larger farms in the United States would serve to lower unit costs in several areas, e.g., Washington, notwithstanding a single crop. On the other hand, a comparison of actual sample production costs available for New Brunswick, Maine and western New York for the late 1960s indicate that per pound production costs in those three areas were all of the same order of magnitude.

An examination of long run average farm values, or returns to growers, suggests that these were, on the whole, about the same in the United States as in Canada, and have grown at about the same rate. Average farm values per pound were 2.1 cents and 1.8 cents in the United States and Canada respectively during the period 1966-70 and 3.4 cents and 3.3 cents during 1971-74. The fact that the average gross return to the grower in the two countries is roughly the same, while such factors as yields and storage suggest higher production costs in Canada would appear to indicate that the return to labour, including the return to labour and management of the grower himself, is probably less in Canada.

TARIFF CONSIDERATIONS

Seed potatoes are classified under tariff item 7120-1 which is described in the tariff schedule as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Seed potatoes for propagating purposes, under such regulations as the Minister may prescribe			
per one hundred pounds	37½ cts.	37½ cts.	75 cts.

Tariff item 7120-1 contains no provision for the application of a seasonal duty and therefore the duty indicated is applicable year round. This item is not included in that section of the tariff dealing with fresh vegetables, but in that part concerned with seeds and plants for propagation. Imports of seed potatoes are dutiable on a net weight basis; unlike most fresh vegetables the weight of the package is not included in the weight for duty.

The present tariff on seed potatoes has been in effect since 1957. Prior to 1957, seed potatoes were free of duty under all three tariffs. Tariff item 7120-1 is not bound under GATT.

Fresh potatoes, other than seed potatoes and other than sweet potatoes, are classified under tariff item 8305-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Potatoes, in their natural state, n.o.p.			
per one hundred pounds	37½ cts.	37½ cts.	75 cts.

Tariff item 8305-1 applies therefore, to both fresh market potatoes and potatoes for processing. This item also contains no provision for the application of a seasonal duty, and therefore the duty is levied year round. Although potatoes are now almost exclusively used for human consumption as a vegetable, tariff item 8305-1 is not included in the preamble preceding tariff item 8701-1, which provides, with respect to fresh vegetables in their natural state, for the inclusion of the weight of the package in the weight for duty; the weight for duty currently is the net weight. This item also does not include a reference to the provision; following tariff item 8731-1, for an additional duty on potatoes imported in consumer packs. Tariff item 8305-1 is bound under GATT.

The present rates of duty under tariff item 8305-1 have existed since April 6, 1957, and have applied to imports of all potatoes other than seed potatoes. The history of the tariff treatment accorded to table potatoes is set forth in Table 8.

Table 8: Potatoes: Tariff History 1930 to Present

<u>Effective Date</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u> ^(a)
1930, May 2 ^(b)	Free	Free	Free
1930, Sept. 17 ^{(c) (d)} per 100 lb.	Free	Free	75 cts.
1939, Jan. 1 ^(e)			
Aug. 1 to June 14 inclusive		Free	
June 15 to July 31, inclusive			
per 100 lb.		37½ cts.	
1950, June 1 ^(f)			
Aug. 1 to June 14, inclusive			
per 100 lb.	Free	Free	75 cts.
June 15 to July 31, inclusive			
per 100 lb.	Free	37½ cts.	75 cts.
1957, April 6			
Potatoes in their natural state,			
n.o.p.			
..... per 100 lb.	37½ cts.	37½ cts.	75 cts.
(g) New potatoes harvested between			
January 1 and June 14 (excluding mature potatoes which have			
been stored in the ground and			
harvested during that period).			
From Jan. 1 to June 14			
per 100 lb.	Free	Free	75 cts.

(a) Applicable to imports from the U.S.A. until December 31, 1935.

(b) Subject to a proviso "Provided that if any country imposes a duty on potatoes grown ... in and imported from Canada, an equal duty shall be imposed on potatoes coming into Canada from such country."

(c) Proviso (b) repealed; item re-enacted, with same wording and rates as called for in Canada-United Kingdom Trade Agreement, with effect from Oct. 13, 1932.

(d) From May 2, 1936, subject to proviso "Provided that if any foreign country imposes on such goods the produce of the Dominion of Canada duties or charges more onerous than are prescribed in the item, duties equivalent thereto shall be imposed on the like goods imported into Canada from such country."

(e) Canada-United States Trade Agreement; free entry M.F.N. also accorded for period June 15 to June 30, 1945, by Order-in-Council; same rates bound under GATT, January 1, 1948.

(f) Statutory Change - proviso (d) struck out.

(g) Item struck out April 10, 1959.

In the tariff revisions which came into effect from May 2, 1930, free entry was provided for potatoes under all tariffs, but this was subject to a proviso that if any country imposed a duty on Canadian-grown potatoes, an equal duty would be imposed on potatoes imported from that country. As a result of the Canada-United Kingdom Trade Agreement, in tariff changes effective from October 13, 1932,

this proviso was struck out, but a rate of duty of 75 cents per one hundred pounds was imposed under the General Tariff, then applicable to imports from the United States. After the United States became entitled to M.F.N. treatment, and thus to free entry for potatoes, the proviso respecting reciprocal rates of duty was re-introduced, with effect from May 2, 1936. The Canada-United States Trade Agreement, in effect from January 1, 1939, limited the effect of this proviso by granting unconditional free entry from August 1 in any year to June 14 in the following year and setting a maximum rate of $37\frac{1}{2}$ cents per one hundred pounds for the period June 15 to July 31. These same rates were bound under GATT with effect from January 1, 1948.

In the tariff changes of June 1, 1950, the concessionary rates were made statutory and the proviso respecting reciprocal rates was finally struck out. Consequently, from June 1, 1950 to April 5, 1957, there were two items for potatoes, both providing free entry under the British Preferential Tariff and a rate of 75 cents per one hundred pounds under the General Tariff. Under the Most-Favoured-Nation Tariff, potatoes were to be free of duty from August 1 to June 14, and subject to a rate of duty of $37\frac{1}{2}$ cents per one hundred pounds from June 15 to July 31, the period when Canadian new potatoes would be coming on the market.

On April 6, 1957, the application of the rate of duty of $37\frac{1}{2}$ cents per hundredweight was extended to cover all imports on a year-round basis with the exception of new potatoes harvested between January 1 and June 14, which entered free under B.P. and M.F.N. This latter item was deleted on April 10, 1959.

The U.S. rate of duty on seed and fresh potatoes n.o.p. is, as in Canada, 37.5 cents per hundredweight with respect to imports from countries under Column 1, which includes Canada. However that rate applies only to the first 114 million pounds of seed and 45 million pounds of fresh potatoes; thereafter the rate of duty doubles.

The relevant tariff items in the Tariff Schedules of the United States are as follows:

		Rates of Duty	
		1	2
Potatoes, white or Irish:			
Seed certified by a responsible officer or agency of a foreign government in accordance with official rules and regulations to have been grown and approved especially for use as seed, in containers marked with the foreign government's official certified seed potato tags:			
137.20	For not over 114,000,000 pounds entered during the 12-month period beginning September 15 in any year	37.5¢ per 100 lbs.	75¢ per 100 lbs.
137.21	Other	75¢ per 100 lbs.	75¢ per 100 lbs.
137.25	Other than such certified seed: For not over 45,000,000 pounds and such additional quantity as may be allowed pursuant to headnote 2 of this part, entered during the 12-month period beginning September 15 in any year	37.5¢ per 100 lbs.	75¢ per 100 lbs.
137.28	Other	75¢ per 100 lbs.	75¢ per 100 lbs.

The Canadian Horticultural Council proposed that the specific duty under the British Preferential and Most-Favoured-Nation Tariff remain at 37½ cents per hundredweight for both seed and fresh potatoes until the level of imports, in any 12-month period commencing April 1, had reached 30 million pounds of seed potatoes and 10 million pounds of fresh potatoes; on imports exceeding those levels, in any one year, it was suggested that the duty be 75 cents per hundredweight. The Council also recommended that fresh potatoes when imported in packages weighing 10 pounds or less be added to those vegetables subject to an additional duty in the proviso following tariff item 8731-1. It proposed that this additional duty, currently 5 p.c. M.F.N., be raised to 10 p.c. M.F.N.; this recommendation is dealt with elsewhere in this report.

The Council did not make any suggestion as with respect to a minimum ad valorem duty for seed and fresh potatoes, or with respect to the inclusion of the weight of the package in the net weight for duty. The establishment of a separate tariff item for processing potatoes was also not brought before the Board.

Table 9 illustrates the decline in the degree of protection provided by the specific duty in recent years from the average ad valorem equivalent of 11.7 per cent during the 1966-70 period to 6.9 per cent in 1975. From the above data, it would appear that a specific duty of 75 cents per hundred pounds in 1975 would have been necessary in order to realize an ad valorem equivalent equal to the 1966-70 average.

Table 9: Potatoes: Average Ad Valorem Equivalent of M.F.N. Specific Duty, 1966-70 to 1975

Year	Price f.o.b. Dutiable	M.F.N. Specific Duty	Ad Valorem Equivalent of M.F.N. Specific Duty
	¢/lb.	¢/lb.	%
Average 1966-70	3.2	0.375	11.7
1971	3.0	0.375	12.5
1972	3.6	0.375	10.4
1973	5.7	0.375	6.6
1974	6.4	0.375	5.9
1975	5.4	0.375	6.9
Average 1971-75	5.1	0.375	7.4

Source: Appendix Table 20.

Rising prices have also reduced the degree of tariff protection afforded by the specific duty to growers of seed potatoes (see Appendix Table 21). The duty of $37\frac{1}{2}$ cents per hundredweight was equivalent to 12.9 per cent on an average f.o.b. price of 2.9 cents per pound for the period 1966-70, while for the period 1971-75, on an average import price of seed potatoes of 4.2 cents per pound, the ad valorem equivalent of the specific duty was 8.9 per cent; in 1974, in fact, it was only 6.6 per cent. To realize an ad valorem equivalent equal to the average of the 1966-70 period, 12.9 per cent, on the basis of an average 1974 import price of 5.7 cents per pound a specific duty of $73\frac{1}{2}$ cents per hundredweight would be required.

The proposal of the Horticultural Council for the establishment of a two-tier duty of $37\frac{1}{2}$ and 75 cents per hundredweight under the British Preferential and Most-Favoured-Nation Tariff for both seed and fresh potatoes was in part aimed at obtaining the same level of protection as that received by U.S. potato growers. If the Council's recommendation were to be implemented, there would be little likelihood that the higher rate of duty would come into effect on seed potatoes because total imports of seed potatoes are unlikely

to reach a level of 30 million pounds; annual imports of seed potatoes have not exceeded 13.5 million pounds. On the other hand, if, as proposed, the higher rate of duty were to apply to fresh potato imports in excess of 10 million pounds, the higher duty would undoubtedly come into effect before the end of April, the first month of the proposed duty year, as imports during that month exceeded that level (see Appendix Table 8). Based on total fresh imports of 277.8 million pounds from April 1973 to March 1974, the higher duty would apply to approximately 96 per cent of total imports. Actually, the Council's proposal amounts to a doubling of the level of protection for fresh potatoes.

The following arguments might be advanced in support of an increase in the specific duty. Such an increase recommends itself from the viewpoint of recovering protection lost as a result of higher prices. A significantly higher specific duty might slow down the recent growth in import penetration, especially of fresh potatoes for processing; imports have increased their overall share of the Canadian market for fresh potatoes from 5.1 per cent in 1961-65 to 7.2 per cent in 1974-75, an increase of 26 per cent. While imports represent a small proportion of the market even 1 per cent of the market is worth between \$1.5 and \$2.0 million to Canadian growers in gross income. Furthermore, an increase in the tariff, from 37½ to 75 cents per hundredweight, would have a favourable impact on growers incomes; assuming a constant share of the domestic market for fresh potatoes held by imports, the maximum benefit to growers is estimated at \$11.1 million or about \$40 per acre for each of the 279,000 acres under potatoes in 1974-75. If realized this would have a position impact particularly on the economies of Prince Edward Island and New Brunswick, for which potatoes are an important crop.

Of course an increase in the specific duty from 37½ to 75 cents per hundredweight, could increase the cost of this staple to the Canadian consumer by some \$17.4 million per year, or \$3.16 per family of four. Moreover, the reduction in the degree of import penetration, as a result of the higher level of tariff protection for fresh potatoes, could be minimal because imports supply only some 7 per cent of the domestic market, and because a large proportion of the imports are premium-priced new potatoes, which will largely be insensitive to a modest increase in duty. It is likely that some of the increased imports in recent years reflected a temporary supply deficiency rather than a more basic change in the cost of production differential between Canadian and United States potato growers. These general considerations apply, as well, to seed potatoes.

The erosion of the level of protection provided by the specific duty on potatoes has already been pointed out. The introduction of a minimum ad valorem rate, along with the specific duty, should serve to prevent further erosion. In the case of a specific duty of 37½ cents per hundredweight the minimum ad valorem duty for seed potatoes, based on an average import price in 1973 of 5.7 cents per pound, would be about 6 per cent. With a specific duty of 75 cents or 55 cents per hundredweight the minimum ad valorem duty would be about 13 per cent or 10 per cent, respectively.

The minimum ad valorem rate for fresh potatoes presents some difficulties because imports of fresh potatoes comprise both those entered for the fresh market and for processing. These potatoes have quite different import values - in 1974 processing potatoes were imported at an estimated average price of 3.6 cents per pound while fresh market potatoes averaged at least double that price. The present specific duty thus provides a much higher level of protection for potatoes for processing compared to those entered for fresh market sale. If the existing specific duty of $37\frac{1}{2}$ cents (per hundredweight) is retained, the minimum ad valorem rate would be 10 per cent for processing potatoes as against 5 per cent for fresh market potatoes. With a specific duty of 55 cents, the minimum ad valorem rate would be 15 per cent for processing potatoes and $7\frac{1}{2}$ per cent for fresh market potatoes. These minimum rates would be 20 p.c. and 10 p.c., respectively, with a specific duty of 75 cents.

A separate tariff item for processing potatoes would, thus, appear to have a number of advantages. It would take into account the differences in the ad valorem equivalent for processing and fresh market potatoes. Furthermore, a separate tariff item would permit more accurate monitoring of imports of processing potatoes.

A tariff item for potatoes, n.o.p., applicable for fresh market potatoes only, would also facilitate the introduction of the provision regarding the additional duty for imports of fresh potatoes packed in individual packages weighing 10 pounds or less, since such an item would no longer include bulk processing potatoes. Extending the additional duty for consumer packs to potatoes would be in line with the Board's recommendation for certain other fresh vegetables in this regard. To the extent that fresh market potatoes are imported in consumer packs, the level of protection on fresh market potatoes would increase, as would the cost to the consumer. The Board does not have information as to what proportion of fresh market potatoes are entered in smaller retail packs (10 pounds or less).

The Board also considered a seasonal tariff for potatoes; in season the normal duty would apply, and a lower duty or free entry during the off-season. It would seem that a seasonal duty for seed potatoes is undesirable because seed potatoes are stored until the next planting season, and thus require year-round protection. A seasonal duty would be appropriate for processing potatoes if there were a period during which domestic processors could not obtain their requirements of processing potatoes from domestic growers. There may, in the case of processing potatoes, be periods when imports are, indeed, the sole source of supply. However, due to a number of factors this period varies not only from one locality or region to another but also from year to year. It would therefore be difficult to determine a period for free entry for imported processing potatoes which would, from time to time, not adversely affect either Canadian growers or Canadian processors. A seasonal duty for processing potatoes is also at this time not necessary because the Canadian government at present provides remission of duties on imports of fresh produce by processors for processing, including potatoes, when such supplies were unavailable from domestic growers.

A seasonal duty for fresh table potatoes may not appear desirable as well, because it can be argued that domestic potatoes can be and are stored in considerable volumes until new domestic potatoes are available. In fact, domestic potatoes supply most of the Canadian market even during May and June when the old stock is running out and when new domestic supplies are not yet available. On the other hand, the quality of old potatoes in these two months has diminished substantially and compares quite unfavourably with that of imported new potatoes. Canadian consumers at that time are increasingly switching over to the imported product even at premium prices.

At first glance, this would seem to provide some justification for lower duty or free entry for new potatoes for a short period immediately prior to the Canadian harvesting season. Difficulties however could emerge in implementing such a policy, arising for example from the supplies of both stored and fresh potatoes available in the various parts of Canada and the United States, or in relation to the dates when harvesting commences in Canada both as between and within the various regions. The Board noted particularly the geographical differences between British Columbia and Manitoba, and the difficulties that might emerge in applying a lower rate of duty in a manner which would fit the different harvesting periods in both areas. Finally, it was clear that the introduction of a lower rate for new potatoes would necessitate the addition of a separate tariff item (as was done briefly in 1958), in order to prevent entry of stored potatoes at a lower rate of duty.

A possible solution would be one which would permit the application of the duty on a year-round basis where necessary but would also allow free entry in any region when circumstances warrant. This could be done by providing an alternative of free entry while at the same time allowing for the application of the seasonal duty for a maximum period of 52 weeks.

CONCLUSIONS

Total production of potatoes in Canada has increased slightly since 1961-65 from an annual average of 4.6 billion pounds to an average of 4.9 billion pounds in 1971-74. The bulk of production is consumed domestically; only 7.1 per cent, on average, was exported during 1971-74. Canadian potato growers have, in fact, become more dependent on the domestic market, as exports have been declining. Imports, including imports of processed potatoes in fresh equivalent weight, accounted, on average, for 7.1 per cent of total domestic disappearance; the share of imports was 5.8 per cent during the period 1961-65. The combination of declining exports and increasing imports has meant that the traditional trade surplus turned into a deficit in 1973-74 and 1974-75. This has affected Canadian growers adversely. Nevertheless, Canada is essentially self-sufficient in meeting its total requirements of potatoes.

While potatoes are grown in substantial volumes in most provinces in Canada, they are most important in Prince Edward Island and New Brunswick, in terms of their contribution to total farm cash

income and cash receipts from field crops. Production in these two provinces together comprises some 45 per cent of the total Canadian output and greatly exceeds regional requirements; a large proportion of their crop enters international and interprovincial trade, the latter mostly to Quebec and Ontario.

Canada produces well in excess of its own requirements of seed potatoes. Production in 1971-74 averaged 682 million pounds as against a domestic usage of 494 million pounds. Exports amounted to 196 million pounds and imports to 9 million pounds. Exports have, however, declined since 1961-65, while imports have increased, though the latter still account for less than 2 per cent of total domestic use. The small volume of imports of seed potatoes primarily enter into western Canada and are believed mainly to involve varieties with a special regional demand, which are not available from other regions in Canada.

Fresh potatoes for human consumption comprise processing potatoes and fresh market potatoes for direct table use. The production of potatoes for processing and the consumption of processed potatoes have expanded during the period under review, while the production and consumption of fresh market potatoes have declined.

Total consumption of processed potatoes has more than doubled between 1961-65 and 1971-74. Processing of potatoes in Canada has expanded at an even greater rate, and as a result imports of processed potatoes lost ground in the domestic market, declining from 12.8 per cent in 1961-65 to 4.8 per cent in 1971-74. The bulk of Canadian processor requirements is purchased from Canadian potato growers, but in recent years imports of potatoes for processing have risen sharply. In 1973-74 and 1974-75, such imports were an estimated 12 and 10 per cent, respectively, of total processor requirements, compared to an estimated 5 per cent for earlier years.

The domestic market for fresh table potatoes has declined by about 15 per cent during the period under study. Imports increased their share of this market marginally, from 5.2 per cent in 1961-65 to 6.2 per cent in 1971-74, while exports of fresh market potatoes dropped by nearly a half. Consequently the total demand, both export and domestic, for Canadian fresh market potatoes has diminished substantially.

The Board is of the opinion that the erosion of the trade surplus in potatoes since 1961-65 reflects some slippage in the international trade position of Canadian growers. It is recognized, however, that the acceleration in this trend during the 1970s was in part due to a particularly poor crop in 1972. The Canadian producer operates under several disadvantages relative to growers in the United States. Domestic growers all have a short, one-crop growing season while some areas in the United States produce two or more crops. The domestic crop must be stored on average for a longer period. Although Canadian growers have been able to improve production since the Tariff Board last surveyed the industry in 1951, yields on average are lower in Canada than in the United States. Despite the additional costs these factors represent, the Canadian

grower has been able basically to maintain his position in the domestic market due to the protection offered by the duty, by the transportation costs on imports, and possibly, by accepting a lower net return. Growers in Prince Edward Island and New Brunswick, however, do not obtain the full benefit of the protection provided by transportation costs as they ship most of their production into export markets and into Quebec and Ontario.

In view of the erosion in the level of tariff protection offered by the current specific duty of $37\frac{1}{2}$ cents per hundredweight, the Board concludes that this level of protection should be raised to 55 cents per hundredweight under both the British Preferential and Most-Favoured-Nation Tariff, for seed potatoes, potatoes for processing, and fresh market potatoes. It is recommended that the specific rate under the General Tariff remain at 75 cents per hundredweight.

The Board takes note of the fact that the United States employs a two-tier tariff on potato imports into that country. However, the Board is of the opinion that the implementation of such a tariff structure by the United States is not, in itself, justification for the establishment of a similar structure in Canada.

The Board also concludes that it would be desirable to prevent the possibility of further erosion in the value of the specific duty, and therefore recommends the introduction of a minimum ad valorem rate in addition to the specific duty. Inasmuch as the import price of seed potatoes and fresh market potatoes are generally similar, the Board feels that the minimum ad valorem for these two uses should be the same, $7\frac{1}{2}$ per cent under the British Preferential and Most-Favoured-Nation Tariff and 10 per cent under the General Tariff. In recognition of the lower unit import values of potatoes entered for processing and hence the higher ad valorem equivalent of the specific duty on such potatoes, the Board also recommends the establishment of a separate tariff item for fresh potatoes when imported by processors. The tariff for this new item is recommended at 55 cents per hundredweight with a minimum ad valorem rate of 15 per cent for B.P. and M.F.N. imports; under the General Tariff a specific duty of 75 cents is recommended with a minimum ad valorem rate of 20 per cent. The tariff item "Potatoes, in their natural state, n.o.p." would thus apply to potatoes for the fresh market only.

The Board also concludes that there is some justification for making some limited provision for free entry, particularly for new potatoes for the fresh market during a limited period preceding the Canadian harvesting season but not necessarily every year. It therefore recommends an alternative rate of Free, but provides for the possibility of retaining the specific duty, or the ad valorem minimum, in effect for the full 52 weeks of the year.

The Board agrees with The Canadian Horticultural Council that an additional duty be levied on fresh market potatoes when imported in individual packages. However, it recommends that such a duty be limited to packages weighing 5 pounds or less, and not 10 pounds as proposed. As discussed elsewhere in this Reference, the relevant packaging duties are recommended at 5 p.c. M.F.N., and 10 p.c. General.

RECOMMENDATIONS

The Board recommends that present tariff items 7120-1 and 8305-1 be deleted from Schedule "A" of the Customs Tariff and that the following items be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Seed potatoes for propagating purposes, under such regulations as the Minister may prescribe			
.... per one hundred pounds	55 cts. but not less than 7½ p.c.	55 cts. but not less than 7½ p.c.	75 cts. but not less than 10 p.c.
Potatoes, n.o.p.			
.... per one hundred pounds	55 cts. but not less than 7½ p.c., or Free	55 cts. but not less than 7½ p.c., or Free	75 cts. but not less than 10 p.c., or Free
<p>In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 52 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.</p>			
<p>When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.</p>			
Potatoes for processing			
.... per one hundred pounds	55 cts. but not less than 15 p.c.	55 cts. but not less than 15 p.c.	75 cts. but not less than 20 p.c.

Potatoes: Supply and Disposition Ratios, Canada, Crop Years,
1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
			-	per cent	-		
Per Cent of Domestic Production:							
Consumed in Processed Form	10.2	18.6	26.3	27.8	23.8	21.4	24.6
Consumed Fresh	48.1	41.5	38.1	32.5	38.5	43.2	38.4
Exported	9.2	8.5	5.7	8.0	7.3	7.2	7.0
Used as Seed	12.6	11.3	9.9	11.7	10.4	8.2	10.0
Shrinkage	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Imports as Per Cent:							
of Total Supply Available	5.3	5.9	5.0	7.1	7.7	6.9	6.7
of Total Domestic Disappearance	5.8	6.5	5.3	7.7	8.2	7.4	7.1
Processed Imports as Per Cent:							
of Consumption in Processed Form	12.8	10.0	3.3	4.5	6.8	4.8	4.8
of Total Domestic Disappearance	1.6	2.2	0.9	1.4	2.0	1.2	1.4
Per Cent of Fresh Market Consumption:							
from Domestic Production	94.8	94.7	94.6	89.9	95.2	94.4	93.8
from Imports	5.2	5.3	5.4	10.1	4.8	5.6	6.2
Per Cent of Total Domestic Disappearance:							
Consumed in Processed Form	12.8	22.3	28.8	30.8	28.8	25.0	28.2
Consumed in Fresh Form	52.7	44.9	40.4	36.3	40.0	45.7	40.9
Used as Seed	13.2	11.7	10.0	11.9	10.5	8.4	10.1
Shrinkage	21.4	21.1	20.7	21.0	20.7	20.9	20.8
Production as % of Total Domestic Disappearance	103.7	102.3	100.4	100.4	99.0	99.7	99.9

Source: Table 4.

Potatoes: Estimated Monthly Distribution of Fresh Market
Consumption, Crop Years, 1961-65 to 1971-74

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent -		- thousand pounds -			per cent
July	21.7	23.6	77,720	33,875	111,595	32.4
Aug.	2.8	2.9	131,424	10,355	141,779	7.3
Sept.	1.6	1.6	154,638	2,706	157,344	1.7
Oct.	1.1	1.2	180,680	3,209	183,889	1.7
Nov.	0.7	0.9	178,546	3,041	181,587	1.7
Dec.	0.9	1.5	163,408	3,394	166,802	2.0
Jan.	1.1	1.7	189,757	4,118	193,895	2.1
Feb.	1.2	1.7	166,267	3,480	169,747	2.1
Mar.	1.8	2.5	171,247	4,257	195,504	2.4
Apr.	3.2	3.5	204,167	5,366	209,533	2.6
May	10.5	8.4	169,895	17,650	187,545	9.4
June	25.3	22.8	86,374	33,373	119,747	27.9
Total	5.2	5.3	1,874,122	124,821	1,998,943	6.2

Source: Derived from Statistics Canada and Agriculture Canada data.

Potatoes: Monthly Storage Holdings, on the 1st of the Month, 1971-72 to 1974-75

	P.E.I.	Nova Scotia	New Brunswick	Maritime Region	Quebec	Ontario	Central Region	Western Region	Canada
				-	thousand pounds	-			
1971-72									
Nov.	766,300	38,000	1,138,800	1,943,100	341,300	445,400	786,700	479,300	3,209,100
Dec.	732,000	32,300	1,137,000	1,901,300	293,200	382,500	675,700	441,200	3,018,200
Jan.	638,700	26,100	1,034,300	1,699,100	256,400	313,500	569,900	387,400	2,656,400
Feb.	562,900	16,800	909,200	1,488,900	178,000	253,400	431,400	318,600	2,238,900
Mar.	496,900	15,400	789,100	1,301,400	166,200	198,000	364,200	253,900	1,919,500
Apr.	422,600	14,200	653,600	1,090,400	119,700	147,400	267,100	183,800	1,541,300
May	319,000	12,800	473,700	805,500	83,400	97,600	181,000	118,700	1,105,200
1972-73									
Nov.	770,900	44,000	1,039,600	1,854,500	226,700	372,200	598,900	413,100	2,866,500
Dec.	662,200	40,900	854,600	1,557,700	197,300	362,300	559,600	361,200	2,478,500
Jan.	548,000	34,500	740,800	1,323,300	159,400	318,500	477,900	305,000	2,106,200
Feb.	419,000	30,200	611,900	1,061,100	114,700	235,000	349,700	255,800	1,666,600
Mar.	323,800	24,200	510,400	858,400	96,000	175,700	271,700	208,300	1,338,400
Apr.	213,800	21,000	397,400	632,200	75,200	126,800	202,000	149,500	983,700
May	130,300	15,900	269,100	415,300	51,600	90,900	142,500	89,100	646,900
1973-74									
Nov.	843,500	37,500	863,400	1,744,400	202,300	415,700	618,000	415,300	2,777,700
Dec.	716,000	31,900	768,400	1,516,300	177,700	391,100	568,800	353,300	2,438,400
Jan.	608,900	30,700	654,600	1,294,200	163,800	320,100	483,900	305,800	2,083,900
Feb.	488,600	25,700	527,100	1,041,400	169,600	246,300	415,900	249,100	1,706,400
Mar.	393,200	23,400	430,400	847,000	104,000	179,300	283,300	194,500	1,324,800
Apr.	269,300	19,300	322,100	610,700	84,800	141,400	226,200	134,200	971,100
May	147,600	12,700	218,800	379,100	57,800	88,400	146,200	84,400	609,700

Potatoes: Monthly Storage Holdings, on the 1st of the Month, 1971-72 to 1974-75

	<u>P.E.I.</u>	<u>Nova Scotia</u>	<u>New Brunswick</u>	<u>Maritime Region</u>	<u>Quebec</u>	<u>Ontario</u>	<u>Central Region</u>	<u>Western Region</u>	<u>Canada</u>
				-	thousand pounds	-			
1974-75									
Nov.	1,134,900	39,500	1,167,900	2,342,300	270,500	516,600	787,100	430,500	3,559,900
Dec.	1,004,700	35,500	1,042,700	2,082,900	242,900	509,400	752,300	382,800	3,218,000
Jan.	891,300	33,100	887,700	1,812,100	225,100	377,800	602,900	338,600	2,753,600
Feb.	785,500	26,700	763,200	1,595,400	190,100	278,700	468,800	274,300	2,318,500
Mar.	672,500	23,700	669,200	1,366,000	159,200	224,500	383,700	228,600	1,978,300
Apr.	538,600	21,200	561,900	1,121,700	130,100	195,300	325,400	173,500	1,620,600
May	378,500	16,300	378,700	773,500	91,300	150,700	242,000	104,000	1,119,500

Source: Agriculture Canada.

Appendix Table 4

Potatoes, Seed: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Others</u>	<u>Total</u>
	- thousand pounds -		
1966	11,986	-	11,986
1967	7,641	-	7,641
1968	13,428	-	13,428
1969	6,394	-	6,394
1970	6,618	-	6,618
Average 1966-70	9,213	-	9,213
1971	7,809	-	7,809
1972	7,900	-	7,900
1973	9,121	-	9,121
1974	8,344	-	8,344
1975	11,966	-	11,966
Average 1971-75	9,028	-	9,028

Source: Statistics Canada.

Appendix Table 5

Potatoes, Seed: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -					
Atlantic Region	933	1,073	2,663	2,149	1,878	3,585
Nfld.	-	-	-	-	-	-
P.E.I.	59	300	-	160	40	90
N.S.	-	-	-	-	-	1
N.B.	874	773	2,663	1,989	1,838	3,495
Central Region	1,164	880	1,501	1,116	542	541
Que.	41	-	49	120	-	-
Ont.	1,123	880	1,452	996	542	541
Western Region	7,117	5,856	3,737	5,856	5,924	7,840
Man.	5,919	4,380	3,155	4,174	3,030	2,832
Sask	232	470	-	-	90	5
Alta.	70	-	-	43	-	-
B.C.	896	1,006	582	1,639	2,804	5,002
Canada	9,213	7,809	7,900	9,121	8,344	11,966

Source: Statistics Canada.

Appendix Table 6

Potatoes, Seed: Imports by Month, Crop Years, 1966-70 to 1974-75

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-74</u>	<u>%</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
- thousand pounds -								
July	35	0.4	13	0.1	-	52	-	-
Aug.	-	-	-	-	-	-	-	-
Sept.	-	-	-	-	-	-	-	-
Oct.	-	-	-	-	-	-	-	-
Nov.	56	0.7	107	1.2	-	249	175	4
Dec.	33	0.4	284	3.1	-	45	671	421
Jan.	86	1.0	122	1.3	-	135	88	265
Feb.	673	8.0	346	3.8	-	168	1,175	40
Mar.	2,555	30.5	1,684	18.5	1,879	1,556	2,173	1,126
Apr.	3,458	41.3	3,114	34.3	3,905	3,741	1,428	3,384
May	1,195	14.3	2,299	25.3	1,517	1,907	1,693	4,080
June	<u>288</u>	<u>3.4</u>	<u>1,108</u>	<u>12.2</u>	<u>254</u>	<u>768</u>	<u>1,361</u>	<u>2,051</u>
Total	8,377	100.0	9,078	100.0	7,554	8,620	8,765	11,372

Source: Statistics Canada.

Appendix Table 7

Potatoes, Fresh: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United</u> <u>States</u>	<u>Other</u>	<u>Total</u>
- thousand pounds -			
1966	256,674	-	256,674
1967	179,761	-	179,761
1968	243,180	-	243,180
1969	196,702	-	196,702
1970	217,099	-	217,099
Average 1966-70	218,683	-	218,683
1971	204,178	-	204,178
1972	227,009	-	227,009
1973	291,158	1	291,159
1974	329,985	47	330,032
1975	303,584	7	303,591
Average 1971-75	271,183	11	271,194

Source: Statistics Canada.

Appendix Table 8

Potatoes, Fresh: Imports by Month, Crop Years, 1966-70 to 1974-75

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-74</u>	<u>%</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
			- thousand pounds					
July	78,646	37.9	86,195	31.5	65,733	83,599	71,629	123,821
Aug.	17,447	8.4	28,880	10.6	23,940	26,234	16,169	49,177
Sept.	4,560	2.2	6,956	2.5	10,606	5,685	3,685	7,850
Oct.	3,145	1.5	6,124	2.2	4,386	4,868	11,041	4,200
Nov.	2,878	1.4	10,798	3.9	3,170	3,950	32,758	3,315
Dec.	3,153	1.5	8,515	3.1	1,819	6,610	20,783	4,848
Jan.	3,863	1.9	7,736	2.8	2,114	1,943	16,062	10,824
Feb.	4,800	2.3	15,053	5.5	4,413	30,463	11,768	13,567
Mar.	6,368	3.1	10,992	4.0	4,299	18,813	10,067	10,787
Apr.	8,974	4.3	12,156	4.4	5,159	10,853	15,576	17,036
May	17,235	8.3	19,981	7.3	17,680	17,859	21,416	22,971
June	56,184	27.1	60,183	22.0	62,398	55,164	61,932	61,240
Total	207,253	100.0	273,570	100.0	205,717	266,041	292,886	329,635

Source: Statistics Canada

Appendix Table 9

Potatoes, Fresh: Imports by Province and Region, 1966-1975

	<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		- thousand pounds				
Atlantic Region	15,212	10,546	11,184	102,704	84,754	87,585
Nfld.	137	725	187	1,534	1,565	1,458
P.E.I.	36	57	20	36	124	47
N.S.	2,223	245	804	1,347	2,136	4,150
N.B.	12,817	9,519	10,173	99,788	80,929	81,930
Central Region	102,806	88,983	107,164	104,014	148,547	82,947
Que.	36,853	38,410	49,390	48,080	78,056	28,910
Ont.	65,953	50,573	57,774	55,933	70,491	54,037
Western Region	100,665	104,649	108,661	84,442	96,731	133,059
Man.	30,983	18,858	14,927	11,070	21,535	29,302
Sask.	6,404	4,724	2,819	4,064	6,041	7,440
Alta. (a)	12,826	16,714	22,368	16,894	20,425	24,964
B.C.	50,452	64,353	68,548	52,413	48,731	71,353
Canada	218,683	204,178	227,009	291,159	330,032	303,591

(a) Includes Yukon.

Source: Statistics Canada.

Potatoes: Percentage Distribution of Fresh Market Imports from
United States, by State of Origin, by Region, 1972-1974

	<u>Calif.</u>	<u>Florida</u>	<u>Idaho</u>	<u>N. Carolina</u>	<u>Virginia</u>	<u>Wash.</u>	<u>Other</u>	<u>Total</u>
				-	-			
<u>1972</u>								
Maritime Region	42.8	1.0	0.1	1.1	55.0	-	-	100.0
Central Region	41.2	3.6	4.9	5.2	34.1	3.6	7.3	100.0
Western Region	57.6	2.0	14.8	-	-	20.6	5.1	100.0
Canada	49.6	2.7	9.8	2.5	17.2	12.2	6.0	100.0
<u>1973</u>								
Maritime Region	51.5	*	0.2	-	48.2	0.1	-	100.0
Central Region	29.9	10.0	7.3	5.3	32.3	5.7	9.4	100.0
Western Region	51.7	2.9	14.9	-	-	25.0	5.5	100.0
Canada	42.2	6.0	11.2	2.3	15.2	16.0	7.1	100.0
<u>1974</u>								
Maritime Region	24.2	0.5	0.5	3.3	70.2	-	1.2	100.0
Central Region	14.1	6.7	2.4	11.2	46.5	5.6	13.4	100.0
Western Region	60.2	1.7	7.4	-	-	17.7	12.9	100.0
Canada	36.1	4.2	4.7	5.7	25.2	11.2	12.8	100.0

Source: Agriculture Canada

Potatoes, Seed: Exports by Country of Destination, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Greece</u>	<u>Cuba</u>	<u>Venezuela</u>	<u>Uruguay</u>	<u>Other</u>	<u>Total</u>
- thousand pounds -							
1966	64,619	13,056	38,237	21,162	23,009	49,180	209,262
1967	106,997	16,911	25,469	32,898	18,163	55,573	256,010
1968	67,483	18,002	26,768	26,479	13,774	54,938	207,446
1969	88,387	21,546	35,112	22,366	20,044	117,385	304,840
1970	79,895	24,129	46,299	42,358	14,707	95,132	302,519
Average							
1966-70	81,476	18,729	34,377	29,053	17,939	74,442	256,015
1971	54,016	6,871	39,531	26,777	8,835	61,310	197,342
1972	29,056	10,348	43,123	22,023	18,395	86,619	209,563
1973	35,482	25,582	6,942	28,897	16,185	55,306	168,393
1974	71,745	15,861	23,018	22,386	15,247	28,306	176,563
1975	52,439	14,303	13,141	24,347	25,420	93,987	233,637
Average							
1971-75	48,548	14,593	25,151	24,886	16,816	65,105	195,100

Source: Statistics Canada

Potatoes, Seed: Exports by Province and Region, 1972-1975

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -				
Atlantic Region	195,740	151,480	147,637	201,409
Nfld.	-	-	-	-
P.E.I.	31,921	41,476	15,142	55,334
N.S.	6,407	10,182	10,922	5,640
N.B.	157,412	99,822	121,573	140,435
Central Region	10,726	12,742	21,887	14,733
Que.	2,412	9,160	13,360	5,955
Ont.	8,314	3,582	8,526	8,778
Western Region	3,097	4,171	7,039	7,495
Man.	10	400	2,515	130
Sask.	-	150	10	-
Alta.	244	5	1,320	248
B.C.	2,844	3,616	3,195	7,117
Canada	209,563	168,393	176,563	223,637

Source: Statistics Canada.

Appendix Table 13

Potatoes, Seed: Exports by Month, Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	%	Average 1971-74	%	1971-72	1972-73	1973-74	1974-75
	- thousand pounds				-			
July	3,067	1.2	490	0.3	458	1,326	126	48
Aug.	528	0.2	290	0.1	1,047	60	55	-
Sept.	1,175	0.5	373	0.2	1,407	40	41	3
Oct.	12,028	4.6	12,414	6.3	11,450	30,735	775	6,696
Nov.	35,358	13.6	32,434	16.6	28,902	47,951	36,494	16,389
Dec.	63,017	24.2	39,906	20.4	53,322	44,969	35,887	25,445
Jan.	51,890	19.9	37,984	19.4	24,987	45,892	39,448	41,611
Feb.	22,416	8.6	13,675	7.0	9,733	9,300	18,770	16,897
Mar.	23,130	8.9	25,588	13.1	18,046	17,700	29,485	37,123
Apr.	23,406	9.0	18,528	9.5	18,871	13,173	24,455	17,612
May	19,911	7.7	12,626	6.5	10,554	8,424	15,278	16,248
June	4,336	1.7	1,343	0.7	2,290	526	546	2,011
Total	260,262	100.0	195,652	100.0	181,068	220,096	201,359	180,085

Source: Statistics Canada

Appendix Table 14

Potatoes, Fresh: Exports by Month, Crop Years, 1966-70 to 1974-75

Month	Average 1966-70	%	Average 1971-74	%	1971-72	1972-73	1973-74	1974-75
	- thousand pounds				-			
July	3,207	2.8	1,212	1.4	799	2,650	687	712
Aug.	2,113	1.8	609	0.7	508	272	899	758
Sept.	2,758	2.4	2,232	2.6	2,583	2,128	1,829	2,389
Oct.	10,367	9.0	5,131	5.9	6,149	6,839	3,680	3,855
Nov.	15,471	13.4	13,496	15.4	11,003	28,728	6,561	7,692
Dec.	14,915	12.9	10,757	12.3	22,247	4,392	6,454	9,935
Jan.	13,411	11.6	10,918	12.5	5,563	7,804	13,932	16,374
Feb.	9,103	7.9	10,209	11.7	3,559	5,756	18,015	13,507
Mar.	10,286	8.9	8,694	9.9	2,795	8,441	13,059	10,480
Apr.	11,899	10.3	12,286	14.1	1,972	11,269	20,467	15,436
May	13,352	11.6	7,521	8.6	2,209	3,632	13,551	10,692
June	8,631	7.5	4,311	4.9	4,610	405	2,763	9,468
Total	115,513	100.0	87,390	100.0	63,999	82,315	101,897	101,299

Source: Statistics Canada.

Appendix Table 15

Potatoes, Fresh: Exports by Province and Region, 1972-1975

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -			
Atlantic Region	58,822	30,636	42,403	43,472
Nfld.	-	25	29	103
P.E.I.	20,617	8,144	-	1,518
N.S.	7,311	5,740	3,147	3,800
N.B.	30,895	16,727	39,227	38,051
Central Region	4,623	11,161	31,017	26,766
Que.	1,864	5,273	18,801	6,413
Ont.	2,759	5,887	12,217	20,353
Western Region	2,273	15,621	33,709	37,051
Man.	-	12,440	29,122	34,896
Sask.	-	-	-	-
Alta.	107	570	1,459	16
B.C.	2,166	2,611	3,127	2,139
Canada	65,718	57,417	107,129	107,290

Source: Statistics Canada

Appendix Table 16

Potatoes, Fresh: Exports by Country of Destination, 1966-1975

<u>Year</u>	<u>United States</u>	<u>USSR</u>	<u>Barbados</u>	<u>Bermuda</u>	<u>Puerto Rico</u>	<u>Other</u>	<u>Total</u>
	- thousand pounds -						
1966	53,131	-	5,727	1,485	24,778	32,075	117,196
1967	47,791	-	6,566	1,840	43,645	28,561	128,403
1968	49,419	201	1,309	2,216	40,174	15,960	109,279
1969	63,733	1,847	6,167	2,285	33,494	38,190	145,715
1970	47,353	804	5,925	1,973	10,834	27,672	94,560
Average 1966-70	52,285	570	5,139	1,960	30,585	28,492	119,031
1971	31,751	1,499	568	2,082	30,021	6,500	72,419
1972	17,589	1,943	1,279	1,824	9,236	33,846	65,718
1973	39,987	2,498	1,777	1,191	7,726	4,238	57,417
1974	101,045	2,800	542	668	-	2,073	107,129
1975	87,763	1,663	1,565	557	1,518	14,224	107,290
Average 1971-75	55,627	2,081	1,146	1,265	9,700	12,176	81,995

Source: Statistics Canada.

Potatoes: Weekly Wholesale to Retail Prices at Halifax and Montreal, 1974

Week Ending	Halifax		Montreal				
	N.S. White, Bag 75 lbs.	Cal. White, Bag 50 lbs.	P.E.I. White, Bag 50 lbs.	N.B. White, Bag 50 lbs.	Que. White, Bag 50 lbs.	Fla. White, Bag 50 lbs.	Va. White, Bag 50 lbs.
			-	cents per pound	-		
Jan. 4	6.3		6.9	6.4	5.5		
11	6.7		7.4	6.7	5.9		
18	7.3		8.4	7.8	6.5		
25	8.3		9.3	8.5	7.3		
Feb. 1	9.0		9.1	8.5	7.5		
8	9.0		8.7	8.3	7.8		
15	9.0		8.9	8.6	7.4		
22	9.0		9.5	9.3	8.4		
Mar. 1	10.0		10.6	10.3	9.1		
8	10.4		10.2	10.1	9.3		
15	10.4	11.5	10.2	9.8	9.0		
22	10.7	18.0	10.4	10.1			
29	11.0	18.0	10.4	10.1			
Apr. 5	11.0		10.4	10.2			
12	11.0		10.7	10.3			
19	12.0		12.1	11.7			
26	12.7		12.1	11.7			
May 3	12.7		11.9	11.2			
10	12.7	24.0 (a)	12.1	10.9		20.5	
17	12.7	23.0 (a)	13.2	12.1		19.0	
24	13.0	23.0 (a)	13.3	12.6		17.8	
31	13.7	23.0 (a)	13.3	12.5		14.8	
June 7	13.7	22.0	12.5	11.4		12.3	12.4
14	13.7	15.0	12.4	11.3			11.8
21	13.7	16.0	11.6	10.8			11.5
28	11.7	16.0	10.8	9.5			

Potatoes: Weekly Wholesale to Retail Prices at Halifax and Montreal, 1974

Week Ending	Halifax		Montreal			
	N.S. White, Bag 75 lbs.	Cal. White, Bag 50 lbs.	P.E.I. White, Bag 50 lbs.	N.B. White, Bag 50 lbs.	Que. White, Bag 50 lbs.	Fla. White, Bag 50 lbs.
			-	cents per pound	-	
July 5	11.7	16.0 (b)	9.5	8.7		
12	11.7	14.0 (b)	9.3		11.0	
19	11.7	12.0 (b)			7.5	
26		11.5 (b)			6.8	
Aug. 2	9.1	10.5 (b)			6.5	
9	9.1				4.5	
16	8.0				3.4	
23	7.0				3.5	
30	5.7				3.3	
Sept. 6	5.5				3.3	
13	5.5				3.4	
20	5.5			3.9	3.3	
27	5.2		5.2	3.8	3.3	
Oct. 4	5.2		5.2	4.3	4.0	
11	5.2		5.4	4.9	4.3	
18	5.5		5.7	5.0	4.6	
25	5.7		5.3	4.9	4.6	
Nov. 1	5.7		5.4	4.8	4.4	
8	5.7		5.1	4.4	4.1	
15	5.7		4.7	4.5	3.8	
22	4.7					
29	4.7		4.3	4.1	3.9	
Dec. 6	4.7		4.3	4.2	3.9	
13	4.7		4.4	4.2		
20	4.6		4.2	3.9		
27	4.5		3.9	3.6		
						Va. White, Bag 50 lbs.
						10.9
						9.3
						7.8
						7.8
						8.1

(a) Florida quotations
(b) Virginia, bags, 100 pounds.

Source: Agriculture Canada.

Appendix Table 17b

Potatoes: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto		Winnipeg		Vancouver		
	P.E.I.	Ont.	Cal.	Man.	Fla.	B.C.	Wash.
	White, Bag 50 lbs.	White, Bag 50 lbs.	White, Bag 50 lbs.	Red, Bag 75 lbs.	Red, Bag Washed, 50 lbs.	Gem, Ctn. 50 lbs.	Gem, Bag 100 lbs.
Jan. 4	7.6			6.7		9.2	8.3
11	7.6			7.0		9.2	8.3
18	8.2		13.8	7.8		9.2	8.5
25	8.4		14.3	8.6		9.8	9.5
Feb. 1	8.6		13.5	8.6		9.9	11.0
8	8.8		14.0	8.6		12.0	11.0
15	9.0		13.8	8.6		12.4	11.2
22	9.4		13.8	9.3		12.8	11.2
Mar. 1	9.9		14.3	10.1		12.8	11.5
8	9.9		14.8	10.1		12.6	12.0
15	10.2		15.3	10.3		12.6	12.0
22	11.1		15.3	10.5		12.6	12.0
29	10.6		15.3	10.1		12.6	12.2
Apr. 5	10.6		15.3	10.1		12.6	12.8
12	10.6		15.8 (b)	10.1	18.8	12.6	12.8
19	12.4		21.8 (b)	11.8	19.5	12.6	12.9
26	12.4		23.5 (b)	12.0	19.5		15.2
3	12.0		22.3 (b)	12.3	21.3		18.5
10	12.0		18.8 (b)	11.7	21.8		15.6
17	13.3		17.3 (b)	12.0	22.5		15.6
24	13.3		16.8 (b)	11.9	22.5		15.6
31	13.3		15.5 (b)	11.9	20.0		15.6
June 7	12.8		13.8 (b)	9.6	18.4		
14	12.9		12.8 (b)	9.5			
21			12.3 (c)	9.4			
28			12.3 (c)	9.1	11.8 (d)		

Potatoes: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto			Winnipeg		Vancouver	
	P.E.I. White, Bag 50 lbs.	Ont. White, Bag 50 lbs.	Cal. White, Bag 50 lbs.	Man. Red, Bag 75 lbs.	Fla. Red, Bag Washed, 50 lbs.	B.C. Gem, Ctn. 50 lbs.	Wash. Gem, Bag 100 lbs.
- cents per pound -							
July	5		11.5 (c)	9.3	11.4 (d)		
	12	7.7 (a)	10.0 (c)	9.6	11.0 (d)		
	19	6.5 (a)	9.8 (c)	9.0	9.9 (d)		
	26	6.3 (a)	9.8 (c)		9.9 (d)		
Aug.	2	6.2 (a)	9.8 (c)		9.0 (d)		
	9	6.0 (a)	9.8 (c)		8.4 (e)		
	16	6.0 (a)	9.8 (c)		7.9 (e)		
	23	6.0	9.8		7.5 (e)		
Sept.	30	5.4		5.5	6.9 (e)		
	6	5.4		5.4	6.9 (e)		
	13	5.2		5.3	6.4 (e)		
	20	5.1 (a)		5.8	7.0 (e)		
Oct.	27	5.2		5.8			
	4	4.9		5.8			7.4
	11	5.0		6.2			7.4
	18	5.1 (a)		6.9			
Nov.	25	4.9 (a)		6.8		6.8	
	1	4.8 (a)		6.6		7.7	
	8	4.5 (a)		6.5		8.2	
	15	5.4		6.2		8.2	
Dec.	22	5.1		6.3		8.2	7.9
	29	4.9		6.3		8.1	7.8
	6	4.4		6.1		8.1	7.8
	13	4.4		6.0		8.1	7.7
	20	4.1		5.1		8.2	7.7
	27	4.1		5.1		8.2	7.7

(a) Ontario, bags, 75 pounds.
(b) Florida quotations.
(c) Long, white.
(d) California, red, bags, washed, 100 pounds.
(e) Minnesota, red, bags, washed, 100 pounds.
Source: Agriculture Canada.

Imported United States Potatoes: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Montreal, Winnipeg and Vancouver, Selected Data by Month, 1974

Month of Shipment	Montreal					Winnipeg					Vancouver				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
February	-	-	-	-	-	-	-	-	-	-	Calif.	10.0	2.4	0.4	12.8
	-	-	-	-	-	-	-	-	-	-	"	12.0	2.4	0.4	14.8
March	-	-	-	-	-	-	-	-	-	-	Florida	11.3	6.3	0.4	18.0
	-	-	-	-	-	-	-	-	-	-	"	11.4	5.2	0.4	17.0
	-	-	-	-	-	-	-	-	-	-	Calif.	13.5	2.4	0.4	16.3
April	-	-	-	-	-	Idaho	16.3	2.5	0.4	19.2	Calif.	16.0	2.4	0.4	18.8
	-	-	-	-	-	"	15.8	2.5	0.4	18.7	-	-	-	-	-
	-	-	-	-	-	"	17.3	2.3	0.4	19.9	-	-	-	-	-
May	Calif.	9.2	3.3	0.4	12.8	Calif.	12.0	3.8	0.4	16.2	Calif.	12.0	2.4	0.4	14.8
	-	-	-	-	-	"	9.0	3.6	0.4	13.0	"	13.0	2.4	0.4	15.8
	-	-	-	-	-	"	11.5	4.1	0.4	16.0	-	-	-	-	-
	-	-	-	-	-	"	7.5	2.5	0.4	10.4	-	-	-	-	-
	-	-	-	-	-	Wash.	17.7	2.3	0.4	20.4	-	-	-	-	-
June	N.C.	8.2	2.1	0.4	10.7	Calif.	7.0	2.6	0.4	10.0	-	-	-	-	-
	"	7.4	2.1	0.4	9.9	Oregon	18.2	2.5	0.4	21.1	-	-	-	-	-
	-	-	-	-	-	"	17.7	2.5	0.4	20.6	-	-	-	-	-
July	N.C.	6.4	1.7	0.4	8.4	Calif.	6.3	2.4	0.4	9.0	Calif.	5.5	2.6	0.4	8.5
	Calif.	6.0	4.1	0.4	10.5	Idaho	19.5	2.6	0.4	22.4	Wash.	7.0	0.9	0.4	8.3
	-	-	-	-	-	Wash.	14.0	2.7	0.4	17.1	"	4.0	0.9	0.4	5.3

Imported United States Potatoes: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Montreal, Winnipeg and Vancouver, Selected Data by Month, 1974

Month of Shipment	Montreal				Winnipeg				Vancouver			
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost		Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	
					- cents per pound							
August	-	-	-	-	Wash.	13.0	2.5	0.4	15.9	-	-	-
	-	-	-	-	"	12.0	2.5	0.4	14.9	-	-	-
	-	-	-	-	"	10.5	2.7	0.4	13.6	-	-	-
September	Wash.	8.5	3.6	0.4	12.8	-	-	-	-	-	-	-
October	-	-	-	-	Calif.	11.0	2.9	0.4	14.3	-	-	-
	-	-	-	-	Wash.	11.5	2.9	0.4	14.8	-	-	-
	-	-	-	-	"	10.5	2.9	0.4	13.8	-	-	-
November	-	-	-	-	Wash.	10.0	2.9	0.4	13.3	-	-	-
December	-	-	-	-	-	-	-	-	-	Calif.	5.0	1.1
											0.4	6.5

Source: Tariff Board Survey.

Potatoes: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by
States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
Idaho		319,000	300,000	323,000	342,000	321,000
Washington		78,000	75,000	82,000	98,000	83,250
Maine		145,000	128,000	137,000	140,000	137,500
North Dakota		129,000	120,000	132,000	135,000	129,000
Minnesota		97,500	85,200	89,400	93,500	91,400
California		82,600	67,700	69,600	70,500	72,600
Other States		<u>540,200</u>	<u>477,900</u>	<u>471,600</u>	<u>511,800</u>	<u>500,375</u>
Total	1,428,520	1,391,300	1,253,800	1,304,600	1,390,800	1,335,125
- Production, '000 lb. -						
Idaho		7,729,000	7,729,500	7,896,500	8,119,500	7,868,625
Washington		3,011,000	3,136,500	3,526,000	4,116,000	3,447,375
Maine		3,770,000	3,328,000	2,877,000	3,640,000	3,403,750
North Dakota		1,999,500	1,740,000	1,914,000	2,295,000	1,987,125
Minnesota		1,672,500	1,506,000	1,497,000	1,742,500	1,604,500
California		2,654,500	2,203,200	2,164,900	2,471,600	2,373,550
Other States		<u>11,098,900</u>	<u>9,952,300</u>	<u>10,065,600</u>	<u>11,821,400</u>	<u>10,734,550</u>
Total	30,931,550	31,935,400	29,595,500	29,941,000	34,206,000	31,419,475
- Average Yield, lb. -						
Idaho		24,229	25,765	24,447	23,741	24,513
Washington		38,603	41,820	43,000	42,000	41,410
Maine		26,000	26,000	21,000	26,000	24,755
North Dakota		15,500	14,500	14,500	17,000	15,404
Minnesota		17,154	17,676	16,745	18,636	17,555
California		32,137	32,544	31,105	35,058	32,694
Other States		20,546	20,825	21,344	23,098	21,453
Total	21,653	22,954	23,605	22,950	24,594	23,533

Appendix Table 19 (concl.)

Potatoes: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by
States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Farm Value, \$'000 -						
Idaho		123,660	189,373	304,015	308,541	231,397
Washington		42,095	65,480	102,254	150,234	90,016
Maine		64,090	136,448	208,583	105,560	128,670
North Dakota		24,594	47,850	88,044	72,293	58,195
Minnesota		23,055	42,888	59,132	55,803	45,220
California		58,128	67,698	121,312	147,350	98,622
Other States		<u>267,176</u>	<u>344,656</u>	<u>584,346</u>	<u>514,380</u>	<u>427,690</u>
Total	651,876	602,998	894,393	1,467,686	1,354,161	1,079,310
- Farm Value, ¢ per lb. -						
Idaho		1.6	2.5	3.8	3.8	2.9
Washington		1.4	2.1	2.9	3.7	2.6
Maine		1.7	4.1	7.3	2.9	3.8
North Dakota		1.2	2.8	4.6	3.2	2.9
Minnesota		1.4	2.8	4.0	3.2	2.8
California		2.2	3.1	5.6	6.0	4.2
Other States		2.4	3.5	5.8	4.4	4.0
Total	2.1	1.9	3.0	4.9	4.0	3.4

Source: U.S. Department of Agriculture.

Potatoes, Fresh: Dutiable Imports and the Ad Valorem Equivalent
of the M.F.N. Specific Duty, 1966-1975

Year	Imports				Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.			
1966	256,674	41	0.02	256,633	2.5	0.375	15.0
1967	179,761	23	0.01	179,739	2.9	0.375	12.9
1968	243,180	53	0.02	243,127	3.4	0.375	11.0
1969	196,702	135	0.07	196,567	3.3	0.375	11.4
1970	217,099	495	0.23	216,604	3.8	0.375	9.9
Average 1966-70	218,683	149	0.07	218,534	3.2	0.375	11.7
1971	204,178	102	0.05	204,076	3.0	0.375	12.5
1972	227,009	336	0.15	226,673	3.6	0.375	10.4
1973	291,159	264	0.09	290,896	5.7	0.375	6.6
1974	330,032	480	0.15	329,552	6.4	0.375	5.9
1975	303,591	284	0.09	303,307	5.4	0.375	6.9
Average 1971-75	271,194	293	0.11	270,901	5.1	0.375	7.4

Source: Statistics Canada.

Potatoes, Seed: Dutiable Imports and the Ad Valorem Equivalent of the M.F.N. Specific Duty, 1966-1975

Year	Imports				Price f.o.b. Dutiable c/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.			
1966	11,986	-	-	11,986	3.3	0.375	11.4
1967	7,641	55	0.72	7,586	3.5	0.375	10.7
1968	13,428	-	-	13,428	2.4	0.375	15.6
1969	6,394	2	0.03	6,392	2.6	0.375	14.4
1970	6,618	-	-	6,618	2.8	0.375	13.4
Average 1966-70	9,213	11	0.12	9,202	2.9	0.375	12.9
1971	7,809	-	-	7,809	2.9	0.375	12.9
1972	7,900	-	-	7,900	2.4	0.375	15.6
1973	9,121	40	0.44	9,081	4.3	0.375	8.7
1974	8,344	3	0.04	8,341	5.7	0.375	6.6
1975	11,966	16	0.13	11,950	5.0	0.375	7.5
Average 1971-75	9,028	12	0.13	9,016	4.2	0.375	8.9

Source: Statistics Canada.

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RADISHES

The radish (Raphanus sativus) is grown in all parts of Canada from the most southerly point in south-western Ontario to the Arctic region. Grown extensively on a commercial basis, radishes are also very common in home gardens. There are spring, summer and winter varieties, which comprise long and globe-shaped types. Each of these three varieties has a different length of time between seeding and harvest. The spring varieties grow quickly and mature in a relatively short time (twenty to thirty days). The winter radishes grow slowly (fifty to sixty days), but attain a larger size. The spring radishes, particularly the globe-shaped and bright red types, are the most popular in Canada; summer and winter varieties are grown only to a limited extent. Topped spring radishes can be stored for three to four weeks only; winter radishes, under proper storage conditions (0°C and high humidity) have a storage life of up to six months.

The radish is remarkable in that climate imposes few restrictions on its cultivation. Market gardeners, close to large centres across Canada, grow radishes for bunching or topping, on a continuing basis throughout the months of May to November. The main commercial production areas in Canada are the lower mainland area of British Columbia, the Essex, Niagara and Toronto areas in Ontario, and the district south of Montreal in Quebec.

In addition to the common varieties of radish, the species R. sativus includes varieties known as the Japanese radish, or daikon, the Chinese radish, also known as lobok or lobak (R. sativus, var. longipinnatus) and the rat-tailed radish (R. sativus, var. caudatus). The daikon is a winter radish with roots weighing up to 2 pounds and the Chinese radish is also a winter variety with large firm roots; both are used primarily in oriental cuisine. The rat-tailed radish does not have an enlarged root; the edible portion is the enormous seed pod, which may be eaten either fresh or pickled. The Board has no information as to the extent to which any of these varieties may be grown in Canada; there are known to have been imports of daikon and lobok.

ACREAGE, PRODUCTION AND FARM VALUE

There are no published data with respect to the acreage, production and farm value of radishes in Canada. Estimates of production in 1973 have been provided by Agriculture Canada. Based on Canadian exports and unloads of Canadian radishes on the domestic market, the Board was also able to arrive at estimates of total Canadian production for the years 1972 and 1974. For 1973, production is estimated at 19.2 million pounds;⁽¹⁾ this volume was produced from

(1) While this figure excludes production in the Maritimes, it is believed to be very small; in 1973, only 6,000 pounds were reported to have been unloaded, all of them at Saint John, New Brunswick.

an estimated 2,000 acres, with an average yield of somewhat less than 10,000 pounds per acre. As with many other vegetables, most of the acreage and production are apparently concentrated in Ontario and Quebec. It is estimated that in 1973 these two provinces accounted for close to 90 per cent of Canadian radish production, a proportion well in excess of their share of the Canadian population. British Columbia produced 10 per cent in 1973; production in the Prairies and the Maritimes was insignificant.

It is estimated that Canada produced 20.1 million pounds of radishes in 1972 and 17.5 million in 1974. Unfortunately, the Board lacks production data for earlier years, but it seems likely from trade statistics that total output of radishes in Canada in 1970 must have been considerably above the 1974 level. Over the years, 1970 to 1974, exports declined by 10 million pounds while imports during the Canadian production months of June to October have increased by some 3 million pounds (see Table 3).

SUPPLY AND DISPOSITION

Canadian production is supplemented by an equal volume of imports, particularly because of a total dependency on imports during the months of November to May. Imports in 1973 totalled 17.3 million pounds for an estimated total supply of 36.5 million pounds, as shown in Table 1. In that year 4.9 million pounds, more than a quarter of Canadian production, were exported. Domestic disappearance amounted to 31.6 million pounds of which 17.3 million pounds, or 55 per cent, were imported; this compares with 57 and 63 per cent in 1972 and 1974 respectively. Consequently, for the three-year period 1972-74 Canadian production evidently supplied somewhat less than half of the annual requirements of the domestic market.

Table 1: Radishes: Supply and Disposition, 1972, 1973, and 1974

	- million lb. -		
	<u>1972</u>	<u>1973</u>	<u>1974</u>
Production	20.1	19.2	17.5
Imports	<u>17.2</u>	<u>17.3</u>	<u>20.5</u>
Total Supply	37.3	36.5	38.1
Exports	7.1	4.9	5.3
Domestic disappearance	30.2	31.6	32.8
From imports	17.2	17.3	20.5
From domestic production	13.0	14.3	12.2

Source: Agriculture Canada, Statistics Canada, and U.S. Department of Commerce.

The radish varieties most commonly grown in Canada are non-storable and are available in Canada mostly during the months of June to October. Imports entering outside these months do not displace Canadian produce. In 1974, imports during the production season amounted to 5.7 million pounds or 31 per cent of the estimated Canadian consumption of 17.9 million pounds during that period. The level of in-season import penetration in 1972 was 20 per cent, based on imports of 3.2 million pounds and consumption of 16.2 million pounds. Most of this growth in import competition, in fact, occurred during the peak Canadian production period of July to September. In 1974, imports during this three-month period totalled 2.9 million pounds, or 16.5 per cent of production in that year, while in 1972, such imports came to 1.0 million pounds or about 5 per cent of production. There is evidence, therefore, that Canadian growers are losing ground to imports.

The proportion of total imports occurring during the Canadian production season has increased substantially in recent years. In 1974, imports during June-October represented 28 per cent of the annual total and during July-September, 14 per cent. In 1972, the comparable proportions were 19 per cent and 6 per cent while in 1968 they were 12 per cent and 5 per cent. Thus, proportionately, imports have grown more rapidly during the Canadian growing season than during the off-season. This has occurred in each province or region, as shown in Table 2. In the Atlantic region, the proportion of imports entering during the summer months increased very little between 1972 and 1974, while the relatively high percentage (52.4 per cent for the June-October period in 1974) suggests that local commercial production of radishes is small. The Prairie Provinces also exhibit a high level of dependence on imports during the Canadian production season, a dependence which appears to have increased considerably, especially during the July-September period, when the proportion of imports jumped from 12.0 per cent in 1972 to 26.2 per cent in 1974. The low level of imports during the summer in British Columbia, Ontario, and Quebec reflects the greater self-sufficiency in radish production of these three provinces. These provinces, however, have experienced the greatest relative growth in imports during the Canadian production season.

Table 2: Radishes: Imports during June-October and July-September as a Percentage of Total Annual Imports, by Province or Region, 1972-74

	Percentage Imported during June-October		Percentage Imported during July-September	
	1972	1974	1972	1974
Atlantic region	49.0	52.4	28.0	31.1
Quebec	9.9	17.9	2.5	5.6
Ontario	11.5	22.3	2.4	10.3
Prairie region	34.4	43.2	12.0	26.2
British Columbia	14.9	17.3	3.3	6.8
Canada	18.7	27.7	5.8	14.1

Source: Based on Appendix Table 1.

EXPORTS

Canada exported only minimal volumes of radishes in the years immediately prior to 1969. In that year, according to United States import statistics (Canadian trade data do not record exports of radishes separately) exports rose very sharply, and in 1970 reached a peak of some 15.3 million pounds. Since then the volume of exports has slid progressively downwards, amounting to only 5.3 million pounds in 1974. In that year the value of exports was \$218,783, and the average export value was 4.1 cents compared to 1.8 cents in 1969. While the 1974 export figure was well below the average unit value of imports in that year, i.e., 10.7 cents, it should be noted that a very high proportion of imports comprised topped radishes in 6-ounce cello packs, a high-priced item. Canadian exports consisted almost entirely of bulk shipments from south-western Ontario.

IMPORTS

Imports of radishes have risen steadily and substantially from 11.6 million pounds in 1967 to 20.5 million pounds in 1974, an increase of 77 per cent. In 1974, the Atlantic region took about 3 per cent of the total, while 57 per cent went to Quebec and Ontario and 40 per cent to the western region (see Appendix Table 4). Imports of radishes in 1974 were valued at \$2.2 million for an average import value of 10.7 cents per pound. As with most other vegetables, the average value of imported radishes has increased in recent years; it was 8.9 cents in 1971.

Practically all imports have come from the United States; a negligible quantity arrived in 1973 from Hong Kong. Approximately one half of Canada's radish imports came from Florida (see Appendix Table 3). California has supplied 35 per cent in recent years with other states such as Arizona supplying the remainder. On a regional basis, western Canada's imports are almost exclusively provided from California (see Appendix Table 2). Florida has supplied the bulk of radishes imported into the central and Atlantic regions.

Table 3: Radishes: Imports and Exports, 1967-75

Year	Imports ^(a) (July-Sept.)	Imports ^(a) (June-Oct.)	Off-Season ^(a) Imports	Total ^(a) Imports	Exports ^(b)
- '000 lb. -					
1967	696	1,855	9,048	11,599	127
1968	692	1,596	10,958	13,246	163
1969	953	2,360	11,335	14,648	10,192
1970	1,144	2,697	11,270	15,111	15,345
1971	809	2,415	13,063	16,287	7,795
1972	1,006	3,219	13,004	17,229	7,147
1973	1,652	3,784	11,860	17,296	4,929
1974	2,890	5,688	11,959	20,537	5,291
1975	2,520	4,695	11,717	18,932	..

(a) Imports under commodity class 91-85.

(b) United States imports under U.S. tariff, item 137.4.

Source: Statistics Canada and U.S. Department of Commerce.

PRICES

There is no information available with respect to the average farm return per pound for radishes. Based on the unit values of Canadian exports and imports, however, it can be inferred that the average farm price has increased in recent years.

Appendix Tables 5a and 5b present weekly quotations of whole-sale-to-retail prices at Halifax, Montreal, Toronto, Winnipeg, and Vancouver for imported radishes and domestic radishes in 1974. An examination of these tables reveals that offerings of local radishes were very limited in Halifax, and occurred at wholesale prices slightly higher than those for imported radishes. On the other hand, local supplies were continuously available in Montreal from early May to November 8, and at prices below those of imported supplies for which quotations were available at the beginning and end of the season only. In general, the same situation applied in Toronto. In Winnipeg, quotations for imported radishes were recorded throughout the year, even when local supplies were available; wholesale prices of imports were somewhat higher than the local product when topped and packed in 6-ounce cellos, and considerably lower when sold bunched. Price data with reference to the Vancouver market indicate continuous offerings of local radishes from May to October, and no quotations for imported supplies during the local production season.

An intermarket comparison of wholesale prices for local radishes in 1974 with reference to 6-pound cartons of 1 dozen bunches reveals that such prices are highest in Halifax, 37.5 cents, and lowest in Toronto, 17.5 to 20 cents.

An indication of the impact of transportation costs and duty on the wholesale price of radishes is provided in Appendix Table 6. This table shows the f.o.b. price, freight and brokerage, duty and landed cost per pound to wholesalers of representative shipments to Montreal, Winnipeg, and Vancouver in 1974. The landed costs of imported radishes in each of the centres showed some variation reflecting for the most part differences in freight and brokerage charges.

The 10 p.c. duty accounted for between 7 and 8 per cent of the landed cost in each of the three aforementioned markets. Freight, brokerage and other costs on imports during the dutiable period ranged from 14 to 28 per cent of the landed cost, evidence that local or regional market suppliers are protected more by freight, brokerage and other costs than by the duty.

CANADA-UNITED STATES COMPARISONS

While data on production and production costs for radishes were limited for Canada, such information could not be obtained at all with respect to the United States. Consequently, a comparison of production costs and other factors was not possible. However, it would seem, in view of the expansion of in-season imports, that the competitive position of the Canadian grower has deteriorated during the 1970s.

TARIFF CONSIDERATIONS

Radishes enter Canada under tariff item 8729-1, which is described as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Radishes	Free	10 p.c. or Free	30 p.c. or Free

In any twelve month period ending 31st March, the ad valorem duty shall not be maintained in force in excess of 26 weeks, and the Free rate shall apply whenever the ad valorem duty is not in effect.

The main concern is the Most-Favoured-Nation Tariff since practically all imports come in under that tariff.

Tariff item 8729-1 was introduced effective January 1, 1968. Prior to that time radishes were dutiable all year at a rate of 10 p.c. M.F.N. as a "vegetable, n.o.p."; the M.F.N. rate on such vegetables was reduced from 27½ p.c. to 15 p.c. in 1936 and to 10 p.c. in 1939, as a result of the Canada-United States Trade Agreements. This rate was bound under GATT, effective January 1, 1948 and made statutory in 1950. The level of protection available to Canadian radish growers has, during their marketing season, therefore, not changed since 1939. Tariff item 8729-1 is bound under GATT.

In order to provide protection when domestic radishes are available, the seasonal duty is applicable for any 26-week period. Based on wholesale price quotations in Appendix Tables 5a and 5b, offerings of locally grown radishes were available for 26 weeks on the Vancouver market in 1974, and for 20 weeks in Winnipeg. In Toronto domestic radishes were offered for 21 weeks in 1974; in Quebec they were offered for 27 weeks, and in Halifax, for four weeks. Thus, it would seem that a 26-week period for applying the seasonal duty is justified in the western and central regions but not in the Atlantic region. Since the introduction of tariff item 8729-1, the seasonal duty was applied for the full 26-week period in the central and western tariff regions. In the Atlantic tariff region, it was on for the full period in 1971 and 1972, only partially in 1973, and was not applied in 1969, 1970, and 1974, as shown in Appendix Table 7.

An increasing proportion of radish imports has been dutiable since 1968. In that year, 6 per cent of total yearly imports were dutiable, a proportion which had risen to 34.5 per cent by 1974. In the latter year, non-dutiable imports totalled 13.4 million pounds. Dutiable imports over the period 1968-74 rose from 0.8 million to 7.1 million pounds, reinforcing the earlier finding that imports during the Canadian production season have grown more rapidly than imports during the off-season.

The Canadian Horticultural Council proposed that the present M.F.N. duty of 10 p.c. under tariff item 8729-1 be increased to 20 p.c. The Council also requested that an additional packaging duty be applied to radishes when imported in pre-packaged, retail size, 5 pounds or less, packs. Radishes are not at present included in those vegetables which are subject to packaging duties. The Council did not propose any specific duty for radishes nor any change to the present 26-week seasonal duty period.

The proposal of The Canadian Horticultural Council would double the existing seasonal ad valorem rate applicable to radishes. A significant volume of imports are evidently entered in retail pre-packs of topped or untopped radishes individually packed in quantities of 12 ounces or less. For such imports, the Council proposes the introduction of a further packaging duty of 10 p.c. (M.F.N. and Gen.). The total effect of the Council's proposal on radishes entered in retail "pre-packs" would raise the 26-week seasonal duty to 30 p.c., from 10 p.c.

In terms of an average value of imports of 10 cents per pound, (1) the doubling of the present 10 p.c. seasonal duty would be equivalent to an increase in protection of 1 cent per pound.

This increase in seasonal protection would yield an additional benefit to growers in the amount of \$143,000 and would cost Canadian consumers \$267,400. For a family of four, the average cost would be 5 cents per year, while the grower would realize an increase in gross returns of \$70 per acre. These estimates do not incorporate the cost of the further 10 p.c. retail packaging duty requested by The Canadian Horticultural Council, which would add to the consumer cost indicated above.

The Board also gave consideration to introducing a specific seasonal duty for radishes, combined with a minimum ad valorem rate. To do so would be consistent with the rate structure adopted for other fresh vegetables in order to protect them from significant upward or downward movements in prices.

(1) The average price per pound for imports in 1972, 1973, and 1974.

With respect to possible nomenclature revisions, the Board understands that the Department of National Revenue, Customs and Excise, holds that the proper tariff classification for Japanese radishes (daikon), Chinese radishes (lobok) and rat-tailed radishes is tariff item 8729-1 as radishes, although it is aware of imports of daikon and lobok under tariff item 8731-1 as "vegetables, n.o.p." The inclusion of figures relating to these varieties would not greatly distort the statistics as the demand for them is believed to be relatively small. The argument for considering them to be radishes is that they are all varieties of the radish species. In contrast, it can be argued that the term radish should at least be confined to edible roots, the part normally consumed, which would exclude the rat-tailed radish, or confined to the vegetable commonly known in Canada as a radish, which would also exclude the Japanese and Chinese varieties. Although the Canadian production of these Japanese and Chinese radish varieties is thought to be insignificant, it may be pointed out that their classification under "vegetables, n.o.p." would permit their duty-free entry under the British Preferential and Most-Favoured-Nation Tariff, removing the tariff protection at present applicable under tariff item 8729-1.

With respect to the United States tariff schedules, radishes imported from Canada into the United States are dutiable at 6% ad valorem under Schedule I. - Animal and Vegetable Products, Part 8. - Vegetables (Vegetables, fresh, chilled, or frozen), item 137.40.

CONCLUSIONS

Canadian exports of radishes have declined while imports, out-of-season as well as during the domestic production period, have increased. This has resulted in a marked decline in Canadian output of this vegetable. This suggests that there has been a decline in the competitive position of Canadian radish producers as against those in the United States. The specific reasons for the decline in the Canadian-held portion of the market are difficult to pinpoint, although they would appear to be related in part to consumer demand for cello pack products throughout the year. The Board, however, is of the opinion that some increase in the level of protection is warranted to reduce or arrest the erosion in the market position of Canadian radish growers.

The Board accordingly recommends a specific seasonal M.F.N. duty of 1 cent per pound, with a minimum ad valorem seasonal rate of 10 per cent, and an additional packaging duty of 5 p.c. This recommended combination of rates would yield, at the minimum, a seasonal M.F.N. duty of 15 p.c. on imports of radishes entered in retail pre-packs, compared with existing duties of 10 p.c. on such imports. It is, furthermore, recommended that the Gen. and M.F.N. rates be the same, and that the B.P. rate be Free.

No change in the period of application of the seasonal duty is recommended as the 26 weeks presently provided for would appear to be adequate.

The Board does not feel it necessary to revise or change the present nomenclature of tariff item 8729-1 respecting Japanese or Chinese radishes, or rat-tailed radishes, such vegetables being at present classified in this tariff item.

RECOMMENDATIONS

The Board recommends that existing tariff item 8729-1 be deleted and that the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Radishes per pound	Free	1 ct. but not less than 10 p.c., or Free	1 ct. but not less than 10 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 26 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

When subject to the specific duty or ad valorem duty and imported in packages five pounds or less, each, see additional duty following item 8748-1.

Appendix Table 1

Radishes: Imports by Month, 1967-1975

<u>Month</u>	<u>Average</u> <u>1967-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	1,693	12.4	2,292	12.7	2,538	2,078	2,243	2,410
Feb.	1,261	9.2	1,445	8.0	1,331	1,544	1,550	1,441
Mar.	1,536	11.3	1,800	10.0	1,751	1,706	1,843	1,901
Apr.	2,127	15.6	2,246	12.4	1,954	2,362	2,169	2,217
May	2,109	15.4	2,665	14.8	2,449	2,422	2,715	2,722
June	805	5.9	1,417	7.8	1,335	1,191	1,881	1,547
July	483	3.5	785	4.3	361	574	1,396	1,273
Aug.	199	1.5	560	3.1	400	543	861	727
Sept.	189	1.4	431	2.4	245	534	632	520
Oct.	451	3.3	767	4.2	878	941	917	628
Nov.	967	7.1	1,486	8.2	2,098	1,328	1,653	1,305
Dec.	1,832	13.4	2,162	12.0	1,888	2,072	2,677	2,242
Total	13,651	100.0	18,056	100.0	17,229	17,296	20,537	18,932

Source: Statistics Canada.

Appendix Table 2

Radishes: Percentage Distribution of Imports to Fresh Market from United States, by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Florida</u>	<u>Arizona</u>	<u>Others</u>	<u>Total</u>
- per cent -					
<u>1972</u>					
Atlantic Region	-	66.7	-	33.3	100.0
Central Region	0.6	88.8	3.0	7.6	100.0
Western Region	91.9	6.1	-	2.0	100.0
Canada	39.4	53.1	1.7	5.8	100.0
<u>1973</u>					
Atlantic Region	1.8	73.0	-	25.2	100.0
Central Region	-	83.1	4.2	12.7	100.0
Western Region	80.8	14.6	-	4.6	100.0
Canada	36.4	51.9	2.2	9.5	100.0
<u>1974</u>					
Atlantic Region	-	76.8	-	23.2	100.0
Central Region	0.3	89.8	3.6	6.3	100.0
Western Region	85.0	10.1	0.2	4.7	100.0
Canada	38.4	53.6	2.0	6.0	100.0

Source: Agriculture Canada.

Appendix Table 3

Radishes: Imports by Country of Origin, 1967-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Other</u>	<u>Total</u>
- thousand pounds -				
1967	11,599	-	-	11,599
1968	13,246	-	-	13,246
1969	14,648	-	-	14,648
1970	15,111	-	-	15,111
Average 1967-70	13,651	-	-	13,651
1971	16,287	-	-	16,287
1972	17,229	-	-	17,229
1973	17,292	-	4	17,296
1974	20,518	19	-	20,537
1975	18,926	3	3	18,932
Average 1971-75	18,050	4	1	18,056

Source: Statistics Canada.

Appendix Table 4

Radishes: Imports by Province and Region, 1967-1975

	<u>Average 1967-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	298	476	436	637	617	735
Nfld.	2	1	2	14	2	4
P.E.I.	5	11	3	9	6	12
N.S.	131	146	136	213	225	228
N.B.	159	318	295	400	384	491
Central Region	8,276	9,538	10,059	9,876	11,804	9,937
Que.	3,227	3,953	4,837	3,993	4,781	3,247
Ont.	5,049	5,585	5,222	5,883	7,023	6,690
Western Region	5,078	6,273	6,734	6,782	8,116	8,259
Man.	897	1,228	1,513	1,699	1,959	2,601
Sask.	607	839	791	994	1,031	1,204
Alta.	1,843	2,313	2,443	2,299	2,956	2,190
B.C.	1,732	1,893	1,987	1,792	2,170	2,264
Canada	13,651	16,287	17,229	17,296	20,537	18,932

Source: Statistics Canada.

Appendix Table 5a (concl.)

Radishes: Weekly Wholesale to Retail Prices at Halifax, Montreal, and Toronto, 1974

Week Ending	Halifax		Montreal		Toronto	
	N.J., Fla.	Fla., N.Y.	Fla.	Que.	Fla.	Ont.
	-	cello, 30x6 oz. 11 lb.	-	bchd. ctn. - cello, 30x6 oz. 3 doz. 18 lb. 11 lb.	bchd. ctn. 4 doz. 34 lb.	bchd. ctn. 1 doz. 6 lb.
- cents per pound -						
July	5	36.4 (b)		12.5	24.5	33.0 (f)
	12	35.5 (b)		12.5	24.5	30.7 (f)
	19	31.8 (b)		12.5	24.5	30.7 (f)
	26	31.8		14.6	25.0	
Aug.	2	31.8		15.3	23.9	20.0
	9	31.8		18.1	30.7	20.0
	16	37.3		20.8	36.4	20.0
	23	37.3		15.3	30.7	20.0
Sept.	30	37.3		13.9	25.0	18.8
	6	37.3		13.2	21.6	17.5
	13	35.5		13.2	21.6	18.8
	20	35.5		14.6	25.0	20.0
Oct.	27	33.6		14.6	25.0	20.0
	4	33.6		23.9	23.9	20.0
	11	33.6		23.9	23.9	20.0
	18	33.6		23.9	23.9	20.0
Nov.	25	33.6	26.2	23.9	28.5	
	1	34.5	28.5	23.9	28.5	
	8	34.5	28.5	23.9	30.7	
	15	34.5	26.2	23.9	30.7	
Dec.	22	34.5	23.9	23.9	30.7	
	29	30.9	23.9	23.9	23.9	
	6	29.5	23.5	21.6	21.6	
	13	29.5	22.3	21.6	21.6	
	20	34.5	25.5	21.6	21.6	
	27	34.5	26.6	21.8(c)	21.8(c)	
			27.7	26.8(c)	26.8(c)	
					16.9(c)	

(a) Local, Nova Scotia bunched at 40 cents per pound. (b) Local, Nova Scotia bunched at 37.5 cents per pound.
(c) Same quotation for Arizona. (d) New Jersey quotations only. (e) New Jersey, bleached, carton of 3 dozen, equivalent to 25 pounds. (f) Ohio quotation only.
Source: Agriculture Canada.

Radishes: Weekly Wholesale to Retail Prices at Winnipeg and Vancouver, 1974									
Week Ending	Winnipeg			Vancouver					
	Cal. bchd. ctn 4 doz., 34 lb.	Fla. - cello, 30 x 6 oz., 11 lb. -	Man. -	Cal. - bchd. ctn. doz., 6 lb. -	B.C. -				
Jan. 4 11 18 25						23.8			
						30.0			
						29.7			
						27.2			
Feb. 1 8 15 22						27.5			
						27.2			
						26.7			
						27.2			
Mar. 1 8 15 22						27.2			
						26.7			
						26.3			
						26.3			
Apr. 5 12 19 26						25.8			
						25.8			
						25.8			
						25.8			
May 3 10 17 24						25.5			
						20.8			
						21.7			
						23.3			
June 7 14 21 28						24.2			
						23.0			
						23.0			
						23.0			

Appendix Table 5b (concl.) -

Radishes: Weekly Wholesale to Retail Prices at Winnipeg and Vancouver, 1974

Week Ending	Winnipeg			Vancouver	
	Cal.	Fla.	Man.	Cal.	B.C.
	bchd. ctn. 4 doz., 34 lb.	- cello, 30 x 6 oz., 11 lb. -		- bchd. ctn. doz., 6 lb. -	
		- cents per pound -			
July 5	18.4	28.9 (c)			23.0
12	18.4	30.3 (c)			23.3
19	17.6	32.1	28.5 (d)		23.3
26	18.4	32.1	22.2 (d)		23.3
Aug. 2	16.5	25.3 (b)	27.3 (d)		23.3
9	16.9 (b)	27.5	25.7		23.3
16	16.9 (b)	25.7	25.7		23.3
23	17.3 (b)	25.7	25.5		23.3
30	16.9 (b)	30.0	28.5		24.2
Sept. 6	17.6 (b)	32.7	28.5		24.2
13	17.6	27.7	28.0		24.2
20		30.9	28.0		24.2
27		30.7	28.5		24.2
Oct. 4		30.5	27.3		24.2
11		29.4	27.5		24.2
18		29.5 (b)	26.4		24.2
25		29.8	26.4		24.2
Nov. 1	22.1	30.9 (c)	27.3		25.5
8	20.1	32.7 (c)	30.3	33.8	
15	18.7	30.3 (c)	30.3	32.2	
22	17.3	28.9 (c)	30.7	29.7	
29	17.3	27.7 (c)	30.7	29.7	
Dec. 6	17.5	28.9 (c)		29.2	
13	17.6	28.9 (c)		29.7	
20	17.6	31.8 (c)		29.2	
27	17.6	31.8 (c)		29.2	

(a) Includes California quotations from Jan. 4 to Apr. 19 and from July 19 to Aug. 2.
 (b) From Aug. 9 to Oct. 25 are Minnesota quotations. (c) Florida and Ohio quotations.
 (d) Local, bunches, 6-lb. carton of 1 dozen bunches, Aug. 9, at 27.2-cents.

Source: Agriculture Canada.

Appendix Table 6

Imported United States Radishes: Total Landed Cost; Cost f.o.b.; Freight, Brokerage
and Other Costs; Cost of Duty; Montreal, Winnipeg,
and Vancouver; Selected Data by Month, 1974

Month of Shipment	Montreal				Winnipeg				Vancouver						
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost

Radishes: Dates of Application and Removal of the Seasonal, Ad Valorem Duty, by Tariff Region, 1966-1975

Year(a)	Maritime Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	-	-		-	-		-	-	
1967	-	-		-	-		-	-	
1968	-	-		-	-		-	-	
1969	-	-							
1970	-	-							
1971	June 11	Dec. 9	181	May 28	Nov. 26	182	June 10	Dec. 9	182
1972	June 13	Dec. 12	182	May 8	Nov. 5	181	Sept. 23	March 24	182
1973	June 15	July 27	42	May 11	Oct. 22	164	June 4	Dec. 2	181
1974	-	-		May 16	Nov. 4	182	May 25	Nov. 23	182
1975	-	-		May 11	Nov. 9	182	April 25	Oct. 24	182
				May 10	Nov. 8	182	April 30	Oct. 29	182
				May 21	Nov. 18	181	June 10	Nov. 13	156

(a) Government fiscal year commencing April 1st and ending March 31st the following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and west thereof.

Source: Department of National Revenue, Customs and Excise.

Appendix Table 8

Radishes: Dutiable and Non-Dutiable Imports, 1968-1975

<u>Year</u>	<u>Imports</u>					<u>Price f.o.b. Dutiable ¢/lb.</u>
	<u>Total</u> <u>'000 lb.</u>	<u>Non-</u> <u>Dutiable</u> <u>'000 lb.</u>	<u>%</u>	<u>Dutiable</u> <u>'000 lb.</u>	<u>%</u>	
1968	13,246	12,473	94.2	773	5.8	8.6
1969	14,648	11,629	79.4	3,019	20.6	9.1
1970	15,111	12,296	81.4	2,816	18.6	8.2
Average 1968-70	14,335	12,132	84.6	2,203	15.4	8.7
1971	16,287	11,117	68.3	5,169	31.7	10.2
1972	17,229	12,731	73.9	4,498	26.1	8.7
1973	17,296	12,532	72.5	4,763	27.5	10.2
1974	20,537	13,445	65.5	7,093	34.5	11.6
1975	18,932	14,557	76.9	4,375	23.1	14.1
Average 1971-75	18,056	12,876	71.3	5,180	28.7	11.0

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RHUBARB

Rhubarb (Rheum rhaponticum), also called pieplant, is a perennial grown both in the field and in forcing sheds, for its large leafstalks. The rhubarb plant is best adapted to the cooler parts of the temperate zones; the roots are quite hardy to cold although the tops are killed in autumn. Rhubarb does not produce plants true to the variety that bears them; therefore, field rhubarb is propagated by dividing the perennial "crown" into pieces consisting of a root piece and a bud. These are set in the field about 4 or 5 feet apart each way. Field rhubarb is harvested in the second year after planting.

In the case of forced rhubarb, large crowns are moved into forcing houses in late fall for producing the leafstalks under artificial heat and in subdued light. A greenhouse is not necessary. Forcing sheds can consist of any type of building that can be darkened and heated to a temperature of 8° to 10°C. Forced rhubarb can be harvested over a six to eight week period, with harvesting occurring on a twice per week basis. After forcing, the roots are discarded. Both types are hand-harvested when the stalk is 18 or more inches in length.

Rhubarb stalks can be stored for two to four weeks at 0°C and a 98 per cent relative humidity. Storage quality is improved if the bunched or loose stalks are packed in crates lined with polyethylene. Forced rhubarb is a very delicate, perishable crop and care must be used in handling, packing and delivering it to market. Rhubarb is sold in bunches on the fresh market and in bulk to processing companies.

Only the fleshy leafstalks are eaten; the leaves should never be eaten since they are sometimes poisonous. Rhubarb is used as a fruit because of its high acidic flavour and is found in pies, tarts, sauces, puddings, punch, jams, jellies and homemade wine. It is easily preserved and readily frozen.

There is also a vegetable called Monk's rhubarb (Rumex alpinus); a form of dock, it is cultivated very little at present. Like rhubarb, it belongs to the buckwheat family but is more closely related to two other vegetables of the genus Rumex, namely sorrel (R. acetosa) and patience or dock (R. patientia). If imported into Canada for use as vegetables, these species would be classified as "vegetables, n.o.p."; they are not further considered in this discussion of rhubarb.

PRODUCTION

Rhubarb is a relatively minor commercial crop in Canada and one for which, except for British Columbia, production figures are not compiled. However, the Board has estimated Canadian production of field and forced rhubarb as illustrated in Table 1.

Table 1: Rhubarb, Field and Forced: Estimated Canadian Production, 1966-70 to 1974

<u>Average</u> <u>1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average</u> <u>1971-74</u>	<u>% Change</u> <u>1966-70 to</u> <u>1971-74</u>
- '000 lb. -						%
6,500	6,100	6,200	5,400	5,000	5,675	-12.7

Source: Derived from Agriculture Canada and Statistics Canada data.

As shown above Canadian production has declined considerably between 1966-70 and 1971-74. For the most part, the decline can be attributed to the high sugar prices prevailing in 1973 and 1974 (large quantities of sugar are required in preparing rhubarb in all processed forms) and to problems encountered by growers in obtaining labour to plant and harvest the crop.

Regional and provincial distribution of production is difficult to ascertain; however, it is thought that Ontario and British Columbia are the major growing areas. In British Columbia, the production of field rhubarb has increased from an average 863 thousand pounds to 1,338 thousand pounds per year between the periods 1968-70 and 1971-73 (see Appendix Table 1). This growth in output is attributable entirely to field rhubarb for processing which doubled between the two periods; output for fresh consumption actually declined by over 25 per cent. The average yearly value of the B.C. field crop was \$69,323 during the period 1971-73.

The quantity of forced rhubarb grown in British Columbia has, on average, declined. Yearly output in the period 1968-70 averaged 182 thousand pounds, dropping to 148 thousand pounds during the period 1971-73. The decline in output was more than offset by rising prices resulting in a slight increase in the total farm value of the forced crop, from an average \$33,683 to \$35,917 between the aforementioned periods.

Forced rhubarb is also grown in Ontario, where production has declined in recent years. According to the Ontario Fresh Winter Rhubarb Growers' Association, the decline in output was attributable primarily to the inability of growers to attract seasonal workers for planting and harvesting the crop. The Association calculated output in 1974 to be 426 thousand pounds; in 1975 production dropped to 243 thousand pounds. In the latter year there were nine growers in Ontario. The yield for 1974 was approximately 17 thousand pounds per acre. Production figures for other years or data relating to field production in Ontario are not available.

Rhubarb is available in Canada beginning in January until September, see Appendix Table 3. Forced rhubarb is harvested from January to April inclusive and field rhubarb during the remainder of the season. Field rhubarb is a spring and relatively cool weather

Table 2: Rhubarb: Supply and Disposition, Canada, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1966-70 to 1971-74</u>
				- '000 lb. -			
<u>Total Production</u> (a)	6,500	6,100	6,200	5,400	5,000	5,675	-12.7
<u>Total Imports - Fresh</u> (b)	86	257	152	33	107	137	+59.3
<u>Total Domestic Disappearance</u>	6,586	6,357	6,352	5,433	5,107	5,812	-11.8
Consumed in processed form From domestic production	1,250	2,144	1,430	1,558	721	1,463	+17.0
Fresh market consumption	5,336	4,213	4,922	3,875	4,386	4,349	-18.5
From domestic production	5,250	3,956	4,770	3,842	4,279	4,212	-19.8
Imported	86	257	152	33	107	137	+59.3

(a) Tariff Board estimate.

(b) Imports of processed rhubarb are believed to be negligible.

Source: Derived from Statistics Canada and Agriculture Canada data.

vegetable, and consequently production is concentrated in May, June and early July. Marketings in August and September account for less than 2 per cent of total Canadian rhubarb production.

SUPPLY AND DISPOSITION

All rhubarb produced in Canada is believed to be consumed domestically; the Board could not find information that rhubarb was exported. While imports of rhubarb have increased, the growth in imports did not offset the decrease in Canadian production, and consequently domestic consumption of commercially grown rhubarb declined by about 12 per cent from 6.6 million pounds in 1966-70 to 5.8 million pounds in 1971-74.

Total imports rose from an annual average of 86 thousand pounds in 1966-70 to 137 thousand pounds in 1971-74, an increase of 59 per cent. However, imports in the latter period were only 2.4 per cent of total domestic disappearance and 3.2 per cent of total fresh market consumption. As shown in Appendix Table 5, almost all imports occur during the January-July period when domestic supplies are available. This is not surprising as rhubarb is primarily a winter and spring crop in the United States as well.

Domestic rhubarb production is consumed primarily in the fresh form; it accounted for 74 per cent of output during 1971-74. At the same time disappearance of processing rhubarb has tended to increase while that for the fresh market has dropped. Processing rhubarb accounted for 26 per cent of total production during 1971-74 compared to 19 per cent in 1966-70.

IMPORTS

Almost all fresh rhubarb imports since 1966 have originated in the United States. The State of Washington accounted for the bulk of such imports particularly into the western region, with California and Florida being the main subsidiary sources of supply (see Appendix Tables 5 and 8). The great majority of imports entered into the western region, especially British Columbia.

PRICES

Data on average farm values for rhubarb were available for British Columbia only. In that province, for the years 1971 to 1973, the farm value of field and forced rhubarb for the fresh market averaged 10.1 cents and 24.3 cents per pound respectively. In Ontario, the average value of forced rhubarb was 28.4 cents in 1974 and 37.3 cents in 1975, according to the Ontario Fresh Winter Rhubarb Growers' Association.

Wholesale to retail prices in five major domestic markets in 1974 are presented in Appendix Table 9. The lack of quotations for imported rhubarb precludes direct price comparisons with the domestic product; however, it appears clear from this absence of quotations that

imported rhubarb is not a serious source of direct competition on the fresh market in the relevant five cities.

Some marked regional differences in the wholesale-to-retail price of locally grown rhubarb existed in 1974. For example, field rhubarb sold for 16 to 25 cents on the Halifax market and for only 5.4 to 9.4 cents in Montreal. The price of the forced variety was also generally higher in Halifax - at a constant 39 cents per pound - than in any of the other markets, although the price spread was not as pronounced as it was with the field crop.

PRODUCTION COSTS

The Board was able to obtain production costs for forced rhubarb only. These costs apply, furthermore, to Ontario for 1974 only, and are given in Table 3.

Table 3: Forced Rhubarb: Production Costs; Ontario, 1974

	<u>1974</u>
Yield, lb./acre	17,246
- \$ per acre -	
Preparation and removal of field roots to forcing shed	\$1,380.41
In-shed costs	137.60
Harvesting and packing	1,400.80
Marketing	1,160.22
Post-harvest forcing shed costs	79.04
Overhead	398.94
Total Costs - per acre	\$4,557.01
- cents per pound	26.42¢
Average Gross Return - cents per pound	28.95¢

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

The Board was informed that of the above amount the cost of labour including that of growing, digging and moving the roots to the forcing shed, and subsequent cultivation, harvesting and packing, totalled \$1,882.37 per acre, or 41 per cent of total cost. The Board did not obtain information with respect to rhubarb production and production costs in the United States, and could, therefore, not compare Canadian output, yields and costs per pound with those of rhubarb growers south of the border.

TARIFF CONSIDERATIONS

Fresh field and forced rhubarb is classified under tariff item 8722-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Rhubarb per pound	Free	$\frac{1}{2}$ ct. or 10 p.c.	$\frac{1}{2}$ ct. or 10 p.c.

In any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 10 weeks, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

In the above form, the item has existed since 1950 and is bound under GATT. On a temporary basis, the 10 p.c. alternative rate was suspended, and free entry substituted from February 20, 1973 to June 30, 1974 and again from November 20, 1974 to June 30, 1977. At the latter date, unless the extension is further extended, the item will revert to its permanent statutory form. The M.F.N. rate was reduced from 27 $\frac{1}{2}$ p.c. to 15 p.c. on January 1, 1936 and to 10 p.c. on January 1, 1939 under the Canada-United States Trade Agreements. Effective January 1, 1948, under GATT, the M.F.N. rate was changed to $\frac{1}{2}$ cent per pound for a period not to exceed 10 weeks and 10 p.c. for the balance of the year. The Gen. rate of 30 p.c., and not less than 1 cent per pound between March 1 and May 31, applicable to imports from the United States prior to January 1, 1936, was made the same as the M.F.N. rate on June 1, 1950.

On importation into the United States, rhubarb is dutiable under item 137.85 at 25 per cent ad valorem. The Board is not aware of any Canadian exports of fresh rhubarb to that country, nor to any other destination.

The Canadian Horticultural Council proposed that the specific duty be increased from $\frac{1}{2}$ ¢ to 1¢ per pound, the period for application of the specific duty be increased from 10 to 12 weeks, and that the 10 per cent ad valorem duty be removed and a Free rate be substituted whenever the specific duty is not in effect.

The specific duty, applicable for a maximum of 10 weeks, could be invoked to cover either the production period of forced rhubarb or the production period of field rhubarb. In the past, the specific duty, when applied, has been in force during the period when field rhubarb was marketed, and hence the growers of forced rhubarb have received protection from the 10 p.c. off-season rate. When the off-season rate was suspended from February 20, 1973 to June 30, 1974 and from November 19, 1974 to the present, the growers of forced rhubarb lost their protection.

The dates of application and removal of the $\frac{1}{2}$ -cent per pound seasonal duty from 1966 to 1975 are listed in Appendix Table 10. It will be noted that during this period the specific duty was never invoked in the central tariff region and only once in the western region. In other words, the 10 p.c. off-season rate was preferred and offered more protection than the specific duty. When the off-season rate was suspended for the periods noted above, only the western region invoked the specific duty, and in 1973 only. The specific duty would appear to be of negligible value.

In the Atlantic Provinces the duty was applied for the maximum 10 weeks for each year from 1971 to 1975, from approximately mid-June to mid-August.

The Horticultural Council proposed that the 10 p.c. off-season rate be permanently eliminated. This would mean that should the specific duty continue to be applied to the marketing season of field rhubarb only, forced rhubarb growers would be without tariff protection. Production of forced rhubarb is relatively small compared to Canadian output of field rhubarb and has declined in recent years in both British Columbia and Ontario. Furthermore, the Board understands that imports of forced rhubarb, with an approximate f.o.b. value of 20-30 cents per pound, are not a serious competitive factor in the marketing of the domestic product, even during those periods when the 10 p.c. duty was temporarily suspended. Thus, there would appear to be no significant reason why the off-season rate, already suspended temporarily on a number of occasions, could not be abandoned permanently.

In their brief to the Board the Council did not advance any reason for its proposal to increase the specific duty. Imports of rhubarb have not greatly affected Canadian output of field rhubarb, although imports have increased their small share of the Canadian market in recent years. At the public sittings it was stated that the request for an increase was solely related to the erosion of the level of protection offered by the specific duty as a result of the increase in the price of rhubarb.

As shown in Appendix Table 11, the average price of imports, including the higher-priced forced rhubarb, was 13 cents in 1971-74. During this period, the average price of imported field rhubarb was some 12 cents per pound. Therefore, the off-season duty of 10 per cent ad valorem would have yielded an approximate average duty of 1.2 cents per pound on field rhubarb. Thus, the 10 p.c. off-season rate offered considerably greater protection than the $\frac{1}{2}$ cent specific duty whereas the seasonal specific duty, designed to be applied when the domestic crop was on the market, is intended to provide at least as much, if not more, protection than the off-season ad valorem rate. This indicates the extent to which the level of protection of the specific duty has eroded.

In keeping with its recommendations pertaining to the tariff structure on most other fresh vegetables, the Board also considered a minimum seasonal ad valorem tariff, in addition to the specific duty, in order to prevent further erosion of the level of protection. The Horticultural Council's proposal for a specific duty of 1 cent per pound would recover some of the protection lost, and a minimum seasonal ad valorem of 5 per cent would lower the minimum level of protection from the current 10 p.c. off-season rate.

From the data on the monthly distribution of fresh rhubarb (Appendix Table 4), it appears that the present seasonal period of 10 weeks is insufficient to cover the domestic marketing season for the field crop; this season runs from late April to mid July. The Horticultural Council's proposal for a 12-week period would cover this season.

CONCLUSIONS

Canadian production of rhubarb appears, from the limited data available, to have declined from an average 6.5 million pounds in 1966-70 to 5.7 million pounds in 1971-74. This decline is accounted for primarily by the difficulty in attracting workers to this labour-intensive crop and by the high price of sugar in 1973 and 1974. Imports have not been a critical factor affecting domestic production despite an increase from an annual average of 86 thousand pounds to 137 thousand pounds during the period under study; during 1971-74, imports accounted, on average, for only 3.2 per cent of fresh market consumption. Most of the Canadian production is field rhubarb grown during late April to mid July; winter-grown forced rhubarb accounts for a small and, it is believed, a declining proportion of the total.

It is concluded that the industry as a whole does not require a high level of protection. Therefore, the Board is of the opinion that the 10 p.c. off-season rate, already temporarily suspended on two occasions since 1973, can be dropped completely, and it so recommends. Furthermore, the Board feels that an increase in the specific duty from $\frac{1}{2}$ cent to 1 cent per pound is justified to recover some of the protection lost in recent years due to higher rhubarb prices, and it so recommends. It is also recommended that this specific duty have a minimum ad valorem value of 5 per cent, which will prevent erosion of the level of protection offered by the specific duty beyond that point, and will at the same time, reduce that level from the current minimum set by the 10 p.c. off-season rate. The period of application of the seasonal specific or ad valorem duty should be extended from 10 to 12 weeks.

RECOMMENDATIONS

The Board recommends that the present tariff item 8722-1 be deleted and that the following tariff item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Rhubarb per pound	Free	1 ct. but not less than 5 p.c., or Free	1 ct. but not less than 5 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 12 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Rhubarb (Field and Forced): Acreage, Production, Price and Value, (a)
British Columbia, 1968-1973

	Fresh				Processed (Manufactured)				Total			
	Acres	Quantity '000 lb.	Price ¢/lb.	Total Value \$	Acres	Quantity '000 lb.	Price ¢/lb.	Total Value \$	Acres	Quantity '000 lb.	Total Value \$	Yield per Acre lb.
A. Field												
1968	144	499	.066	32,934	50	363	.032	11,616	194	862	44,550	4,443
1969	88	295	.125	36,756	83	609	.055	33,464	171	904	70,220	5,287
1970	85	255	.099	25,210	60	567	.040	22,889	145	822	48,099	5,669
Average 1968-70	106	350	.090	31,633	64	513	.044	22,656	170	863	54,290	5,076
1971	52	247	.079	19,632	62	1,227	.040	49,100	114	1,474	68,732	12,930
1972	52	243	.095	23,085	45	1,043	.040	41,712	97	1,286	64,797	13,258
1973	53	285	.125	35,625	51	970	.040	38,816	104	1,255	74,441	12,067
Average 1971-73	52	258	.101	26,114	53	1,080	.040	43,209	105	1,338	69,323	12,743
B. Forced												
1968	..	163	.160	26,080	..	..	..	..	..	163	26,080	..
1969	..	210	.200	42,084	..	..	..	..	..	210	42,084	..
1970	..	173	.190	32,886	..	..	..	..	..	173	32,886	..
Average 1968-70	..	182	.185	33,683	..	..	..	..	..	182	33,683	..
1971	..	151	.240	36,200	..	..	..	..	..	151	36,200	..
1972	..	170	.240	40,800	..	..	..	..	..	170	40,800	..
1973	..	123	.250	30,750	..	..	..	..	..	123	30,750	..
Average 1971-73	..	148	.243	35,917	..	..	..	..	..	148	35,917	..

(a) Excludes roadside sales.

Source: B.C. Department of Agriculture.

	Average 1966-70	1971	1972	1973	1974	Average 1971-74
			-	per cent	-	
Per Cent of Domestic Production:						
Sold for Processing	19.2	35.1	23.1	28.9	14.4	25.8
Sold to Domestic Fresh Market	80.8	64.9	76.9	71.1	85.6	74.2
Total Imports as Per Cent: of Total Domestic Disappearance	1.3	4.0	2.4	0.6	2.1	2.4
Per Cent of Fresh Market Consumption:						
From Domestic Production	98.4	93.9	96.9	99.1	97.6	96.8
From Imports	1.6	6.1	3.1	0.9	2.4	3.2
Per Cent of Total Domestic Disappearance:						
Consumed in Processed Form	19.0	33.7	22.5	28.7	14.1	25.2
Consumed in Fresh Form	81.0	66.3	77.5	71.3	85.9	74.8
Production as % of Total Domestic Disappearance	98.7	96.0	97.6	99.4	97.9	97.6

Source: Table 2.

Appendix Table 3

Rhubarb: Estimated Monthly Distribution of Fresh Shipments^(a)
to Principal Markets, 1966-1974

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
- thousand pounds -						
Jan.	446	269	285	243	373	175
Feb.	735	525	566	572	496	466
Mar.	572	515	443	706	569	342
Apr.	609	433	483	429	476	342
May	935	893	728	1,068	1,103	672
June	1,502	1,250	1,412	1,317	730	1,540
July	410	296	40	415	69	659
Aug.	42	24	-	14	19	64
Sept.	-	7	-	5	4	17
Oct.	-	1	-	-	4	-
Nov.	-	-	-	-	-	-
Dec.	-	-	-	-	-	-
Year	5,250	4,212	3,956	4,770	3,842	4,279

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Rhubarb: Estimated Monthly Distribution of Fresh Market
Consumption, 1966-70 to 1971-74

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>			<u>Imports as % of Con- sumption</u>
	<u>Imports as % of Con- sumption</u>	<u>From Domestic Production</u>	<u>From Imports</u>	<u>Total Consumption</u>	
per cent		- thousand pounds -			per cent
Jan.	0.4	269	5	274	1.8
Feb.	1.1	525	44	569	7.7
Mar.	1.4	515	2	517	0.4
Apr.	3.5	433	17	450	3.8
May	3.2	893	61	954	6.4
June	0.9	1,250	6	1,256	0.5
July	0.2	296	*	296	*
Aug.	*	24	-	24	-
Sept.	-	7	-	7	-
Oct.	-	1	*	1	*
Nov.	*	-	1	1	100.0
Dec.	-	-	1	1	100.0
Total	1.6	4,212	137	4,349	3.2

Source: Derived from Statistics Canada and Agriculture Canada data.

Rhubarb: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Hong Kong</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -				
1966	70	-	-	70
1967	86	-	-	86
1968	54	-	-	54
1969	54	-	-	54
1970	167	-	-	167
Average 1966-70	86	-	-	86
1971	257	-	-	257
1972	152	-	-	152
1973	33	-	-	33
1974	106	1	-	107
1975	96	-	-	96
Average 1971-75	129	*	-	129

Source: Customs documents, tabulated by Statistics Canada.

Rhubarb: Imports by Province and Region, 1971-1975

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Atlantic Region	14	20	10	13	22
Nfld.	-	-	-	*	-
P.E.I.	1	*	*	-	*
N.S.	8	15	5	7	18
N.B.	6	4	5	6	4
Central Region	23	20	15	23	13
Que.	20	18	14	8	9
Ont.	3	2	1	15	5
Western Region	219	113	8	71	61
Man.	1	-	*	2	3
Sask.	-	-	-	-	1
Alta.	3	*	-	1	14
B.C.	216	112	8	68	42
Canada	257	152	33	107	96

Source: Customs documents, tabulated by Statistics Canada.

Appendix Table 7

Rhubarb: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	2	1.9	4	3.3	13	7	1	-
Feb.	8	9.6	39	30.4	92	1	58	19
Mar.	8	8.8	3	2.3	*	*	3	6
Apr.	22	25.8	16	12.2	1	6	6	11
May	31	36.1	55	42.8	32	15	28	32
June	14	16.1	8	6.4	13	2	5	18
July	1	1.1	1	0.8	-	-	1	5
Aug.	*	0.2	*	0.3	-	-	-	2
Sept.	-	-	-	-	-	-	-	-
Oct.	-	-	*	0.2	-	1	-	1
Nov.	*	0.1	1	0.4	-	*	3	-
Dec.	-	-	1	0.8	-	1	3	2
Total	86	100.0	129	100.0	152	33	107	96

Source: Customs documents, tabulated by Statistics Canada.

Appendix Table 8

Rhubarb: Percentage Distribution of Fresh Market
Imports from United States, by State of
Origin, by Region, 1972-1974

	<u>Calif.</u>	<u>Wash.</u>	<u>Fla.</u>	<u>Others</u>	<u>Total</u>
- per cent -					
<u>1972</u>					
Atlantic Region	-	-	-	-	-
Central Region	-	-	-	100.0 ^(a)	100.0
Western Region	-	100.0	-	-	100.0
Canada	-	61.2	-	38.8	100.0
<u>1973</u>					
Atlantic Region	-	-	-	100.0	100.0
Central Region	-	-	-	-	-
Western Region	15.2	84.8	-	-	100.0
Canada	14.3	80.0	-	5.7	100.0
<u>1974</u>					
Atlantic Region	-	-	100.0	-	100.0
Central Region	-	-	100.0	-	100.0
Western Region	14.0	86.0	-	-	100.0
Canada	11.8	72.0	16.2	-	100.0

(a) New Jersey.

Source: Agriculture Canada.

Rhubarb: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year (a)	Maritime Provinces			Central Canada (b)			Western Canada (c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	June 8	Aug. 17	70	-	-	-	-	-	-
1967	-	-	-	-	-	-	-	-	-
1968	-	-	-	-	-	-	-	-	-
1969	-	-	-	-	-	-	-	-	-
1970	-	-	-	-	-	-	-	-	-
1971	June 10	Aug. 18	68	-	-	-	-	-	-
1972	June 13	Aug. 22	70	-	-	-	-	-	-
1973	June 8	Aug. 17	70	-	-	-	July 24	Oct. 2	70
1974	June 11	Aug. 19	69	-	-	-	-	-	-
1975	June 10	Aug. 18	69	-	-	-	-	-	-

(a) Government fiscal year commencing April 1st; ending March 31st of following year.

(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

(c) Includes Thunder Bay and West thereof.

Source: National Revenue.

Rhubarb: Dutiable Imports and the Ad Valorem Equivalent of the
M.F.N. Specific Duty, 1966-1975

Year	Total '000 lb.	Non- Dutiable '000 lb.	%	Dutiable '000 lb.	%	Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
1966	70	*	0.3	70	99.7	12.0	0.5	4.2
1967	86	-	-	86	100.0	10.8	0.5	4.6
1968	54	1	1.2	54	98.8	13.2	0.5	3.8
1969	54	1	2.2	53	97.8	13.6	0.5	3.7
1970	167	1	0.5	166	99.5	11.6	0.5	4.3
Average 1966-70	86	*	0.7	86	99.3	12.0	0.5	4.2
1971	257	-	-	257	100.0	12.3	0.5	4.1
1972	152	-	-	152	100.0	10.0	0.5	5.0
1973	33	25	74.9	8	25.1	11.0	0.5	4.5
1974	107	102	94.9	5	5.1	19.0	0.5	2.6
1975	96	87	90.6	10	9.4	9.3	0.5	5.4
Average 1971-75	129	43	33.1	86	66.9	11.5	0.5	4.3

Source: Customs documents, tabulated by Statistics Canada.

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RUTABAGAS (TURNIPS)

The rutabaga (Brassica campestris var. napobrassica), sometimes called the "Swede turnip" or "table turnip," closely resembles the turnip (Brassica rapa). Turnips and rutabagas resemble each other in size of plant, general size and shape of root and flesh colours, with differences chiefly being in leaf characteristics and details of root shape and structure. While there are white-fleshed and yellow-fleshed varieties of both the rutabaga and turnip, commercial rutabagas are virtually all yellow-fleshed and turnips white-fleshed. A native of temperate Europe, the so-called Swedish turnip or "rotabagge," which was introduced to North America in the early nineteenth century, was yellow-fleshed as is the prime modern Canadian variety, Laurentian, a variety introduced by Macdonald College in the mid 1930s. It is the rutabaga which is widely grown in Canada, production of white-fleshed or "summer" turnips being restricted mainly, in relatively small volumes, to Quebec, and Manitoba.

Turnips, sometimes, are pulled before the root begins to take shape with the leaves being sold as a separate product known as "turnip greens" or "rappini" (Brassica rapa). Neither "rappini," nor a similar vegetable known as an "Italian turnip" (Brassica ruvo), are believed to be produced in Canada and are excluded from the following analysis.

Rutabagas rank among the more important vegetable crops grown in Canada, and, for the period 1971-74, ranked eighth in farm value among vegetables produced in Canada. Because of its ability to withstand relatively long storage, the rutabaga has long been considered an important "winter" vegetable. However, improved transportation and storage systems have led to the year-round availability of a much wider selection of vegetables. As a result, consumers have tended to substitute other vegetables, which may be more easily prepared or have a preferred taste, for rutabagas. As a result per capita consumption of this vegetable has declined.

GROWING AND HARVESTING

Turnips and rutabagas are essentially cool-climate crops and make their most vigorous root growth at relatively low growing temperatures; mean temperatures above 24°C cause serious damage to the leaves, depressing growth or ruining the plants. Because high temperatures cause the formation of long, undesired necks and poorly shaped roots in rutabagas, commercial production in Canada is generally restricted to the cooler growing areas where there is adequate moisture. For best development, the rutabaga requires deep, loose, well-drained, silt-loams. Exposure to frost actually improves the flavour and quality of the rutabaga because temperatures near the freezing point increase the sugar content of the roots; but they should be harvested before they freeze. Canada thus has a climatic advantage over the United States, in that in the growing areas of Canada there is a delay between the first frost and freeze-up. Rutabagas for fall harvest are normally planted between June 20 and July 10 in Canada. Rutabagas must be grown quickly and earlier seeding is not justified as the roots will have grown too large by the time of the first frost and thus have limited marketability. While turnips are grown in every state of the United States they are chiefly grown north of the 24° isotherm, where they are spring-planted and harvested late in the fall.

Turnips and rutabagas are part of the old "rotation" system of farming, i.e., alfalfa, turnips, etc. The crop has been popular both as a high vitamin vegetable for human consumption and as feed for livestock. However, high labour costs and higher yield crops such as silage corn, have generally made the crop too expensive for livestock feed except on a salvage basis.

The rutabaga growers in Canada were the first to accept precision seeding as a means of reducing thinning costs. Unlike onions and carrots or lettuce, rutabaga seed does not require coating to develop singulation in seeding. On large rutabaga acreages, selective herbicides can be used to control weeds. Large acreages are usually harvested with a sugar beet harvesting machine, which digs, tops, and loads in one operation. Smaller acreages may be harvested using a potato digger, the root being topped and trimmed by hand.

Rutabagas require the same storage conditions as topped carrots and should keep satisfactorily under such conditions for four to six months (0°C , 90-95 per cent relative humidity). Without high humidity they lose moisture and shrivel readily. Rutabagas are often given a paraffin wax coating, just before being marketed, to improve their appearance and also to prevent shrivelling on the shelf. Turnips are less storable than rutabagas.

ACREAGE, PRODUCTION AND FARM VALUE

The data published by Statistics Canada with respect to acreage, production and farm value, see Table 1, do not distinguish between turnips and rutabagas; they cover both. However, the bulk of the acreage and output refers to rutabagas; the volume of turnip production is believed to be relatively small, and, on the basis of unload information, is primarily located in Quebec. For purposes of this report the available statistics are deemed to refer, unless specifically indicated otherwise, to rutabagas only.

Acreage devoted to rutabaga production has, since the beginning of this decade, remained stable at 8 to 9 thousand acres. However, before the 1970s the acreage under rutabagas in Canada has steadily declined; there were 128 thousand, 48 thousand and 29 thousand acres in 1941, 1951, and 1961 respectively. While the rutabaga acreage in 1971 was only one-third of the amount in 1961, the number of farms reporting production of this crop in 1971 was only a tenth of the earlier census figure (see Appendix Table 1). Thus, it would appear that a large part of the decline in acreage has taken place on small farms where the crop was a secondary one.

As with so many vegetable crops in Canada, the two main production areas are Quebec and Ontario, accounting for nearly 70 per cent of the acreage. Within the central region production is concentrated in the west central area of Ontario, where the climate and silt-loams are ideal for rutabaga production, while the l'Assomption area has traditionally been the most important growing area in Quebec. The main production areas around Winnipeg and in southern Alberta account for 65 per cent of the rutabaga acreage in the Prairies, while in British Columbia, the main production areas are Vancouver Island and the Fraser Valley.

The decline in Canadian rutabaga production is directly proportional to the decline in acreage. Canadian production, which averaged 401 million for the period 1961-65 totalled 203.6 million pounds annually during the period 1971-74. Lower rutabaga production in the Maritimes accounted for 63 per cent of the total decrease, while lower production in Ontario accounted for an additional 34 per cent; thus 98 per cent of the total decline can be traced to these two regions.

Average yields per acre of rutabagas, for Canada as a whole, showed no significant difference for the average of the four years 1971-74 over the averages for 1961-65 and 1966-70. However, average yields per acre have varied considerably between regions and from year to year. Ontario, which produces about 57 per cent of Canada's rutabaga crop, had yields averaging 30 thousand pounds per acre in the period 1971-74; this province was the only one showing an increase in yield. During the same period, yields per acre averaged about 21 thousand pounds in the Maritimes and the Prairies, about 19 thousand pounds in British Columbia, and 15,300 pounds in Quebec.

The total value of the Canadian rutabaga crop averaged \$6.4 million in the period 1971-74, compared with \$5.3 million in 1961-65. The farm value per pound increased from an average of 1.3 cents to 3.1 cents during this period. Prices to the grower have risen particularly since 1971. Farm values per pound were generally the highest in western Canada and lowest in the Maritimes.⁽¹⁾ In Ontario the average farm value of rutabagas was 1.4 cents per pound for the period 1961-65, 1.9 cents for 1966-70 and 3.0 cents for 1971-74.

SUPPLY AND DISPOSITION

The decline in Canadian production of rutabagas was almost entirely the result of diminishing fresh market consumption; exports have remained comparatively stable, as have the amounts used for processing (see Table 2). Rutabaga production decreased 30 per cent from an average of 400.9 million pounds average for the five years 1961-65 to 282.2 million pounds annually for the years, 1966-70 and by a further 30 per cent, to 203.6 million pounds, during the period 1971-74. Exports of rutabagas declined during this time from an average of 88 million pounds in 1961-65 to 81.0 million pounds during 1971-74, a drop of 8.0 per cent; the proportion of Canadian production which was exported increased from 22 to 40 per cent. Rutabagas used for processing, in the form of a diced frozen product, which are believed to be almost all domestically grown, have remained at about 2 million pounds per year since 1966, except for the bumper year of 1968 when this quantity doubled. During 1971-74, rutabagas used for processing accounted for only 1 per cent of total production.

(1) Data for the Maritimes are based on "field roots," which are normally defined as rutabagas and turnips used mainly for animal fodder. Because rutabagas used as animal feed has a value of only about $\frac{1}{2}$ cent per pound, the average farm value per pound in the Maritimes probably underestimates the farm value of rutabagas destined for human consumption.

Table 1: Rutabagas (Turnips): Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes ^(a)	6,780	3,160	1,100	1,500	2,000	2,550	1,788	- 73.6
Quebec	1,960	2,140	2,160	1,950	2,070	2,230	2,103	+ 7.3
Ontario	7,110	5,268	3,690	3,740	4,040	3,890	3,840	- 46.0
Prairies	638	882	670	570	570	470	570	- 10.7
B.C.	292	354	320	310	390	280	325	+ 11.3
Canada	16,780	11,804	7,940	8,070	9,070	9,420	8,625	- 48.6
- Production '000 lb. -								
Maritimes ^(a)	161,600	78,000	30,000	34,000	36,000	48,800	37,200	- 77.0
Quebec	34,444	42,213	36,720	23,010	33,534	35,011	32,069	- 6.9
Ontario	183,072	132,662	106,583	118,770	116,522	118,959	115,209	- 37.1
Prairies	15,999	22,326	15,614	13,652	11,865	10,326	12,864	- 19.6
B.C.	5,827	6,976	5,963	5,896	7,435	5,885	6,295	+ 8.0
Canada	400,942	282,177	194,880	195,328	205,356	218,981	203,636	- 49.2
- Average Yield, lb. -								
Maritimes ^(a)	23,835	24,684	27,273	22,667	18,000	19,137	20,805	- 12.7
Quebec	17,573	19,726	17,000	11,800	16,200	15,700	15,249	- 13.2
Ontario	25,749	25,183	28,884	31,757	28,842	30,581	30,002	+ 16.5
Prairies	25,077	25,313	23,304	23,951	20,816	21,970	22,568	- 10.0
B.C.	19,955	19,706	18,634	19,019	19,064	21,018	19,369	- 2.9
Canada	23,894	23,905	24,544	24,204	22,641	23,246	23,610	- 1.2
- Farm Value, \$'000 -								
Maritimes ^(a)	1,644	1,038	415	800	863	1,209	822	- 50.0
Quebec	658	850	734	1,012	1,308	1,295	1,087	+ 65.2
Ontario	2,492	2,583	1,899	3,737	3,841	4,388	3,466	+ 39.1
Prairies	316	671	577	617	681	611	622	+ 96.8
B.C.	156	324	301	286	556	463	402	+157.7
Canada	5,266	5,466	3,926	6,452	7,249	7,966	6,398	+ 21.5
- Farm Value, ¢/lb. -								
Maritimes ^(a)	1.0	1.3	1.4	2.4	2.4	2.5	2.2	+120.0
Quebec	1.9	2.0	2.0	4.4	3.9	3.7	3.4	+ 78.9
Ontario	1.4	1.9	1.8	3.1	3.3	3.7	3.0	+114.3
Prairies	2.0	3.0	3.7	4.5	5.7	5.9	4.8	+140.0
B.C.	2.7	4.6	5.0	4.9	7.5	7.9	6.4	+137.0
Canada	1.3	1.9	2.0	3.3	3.5	3.6	3.1	+138.5

(a) Data for the Maritimes "relate to field roots."

Source: Statistics Canada.

Domestic fresh market consumption of rutabagas decreased 38 per cent from an average of 312 million pounds for the period 1961-65 to 193 million pounds during 1966-70, and then by another 38 per cent to 121 million pounds during 1971-74. Domestic fresh table consumption took a steadily decreasing share of total production, 78, 68, and 59 per cent in 1961-65, 1966-70, and 1971-74 respectively. Imports have increased slowly during the period under review, but accounted for little more than 1 per cent of total production in 1974-75.

On the basis of domestic unload data it is estimated that, in the period 1971-74, an annual average of 52 million pounds, or 43 per cent of domestic market sales were marketed direct from the field during the months of July through November. Some 13 million pounds were marketed during the months of July and August. In part these marketings consisted of early rutabagas, however it is likely that a substantial part comprised white summer turnips, all of which are believed to be marketed direct from the field. It is estimated that 82 per cent of the 68 million pounds held in storage moves into the market during the five months, December to April. A further 12 per cent moves out of storage in May and the remaining 6 per cent in June. There does not appear to have been a concerted effort to extend the storage period into July, at which time there is competition from the white summer turnip, both domestic and imported. A summary of the estimated monthly distribution of fresh rutabagas (and turnips) is shown in Appendix Table 4.

Storage holdings as a proportion of total rutabaga production vary widely between regions (Appendix Table 12). Taking the storage holdings at their highest point and averaging for the crop years 1971-74, it can be calculated that in the Maritimes 18 million pounds or 49 per cent of production was placed in storage. In Ontario, where more and more producers are becoming specialized rutabaga growers with large acreages and their own storage facilities and waxing operations, 78 million pounds or 67 per cent of production was held in storage. About 12 million pounds or 38 per cent of the Quebec production was stored. Despite the relatively low storage holdings in Quebec, these holdings were held for a longer period of time. In the Maritimes and Ontario, less than 10 per cent of holdings were moved out of storage after May 1, as opposed to 19 per cent for Quebec. Storage holdings in the western region, none are shown in Appendix Table 12, are believed to be small.

Forty-four per cent of rutabaga exports during 1971-74 were marketed direct from the field. Of that average of 36 million pounds, less than 2 per cent were exported in July; only 10 per cent in August, and the remainder in September, October and November. The remaining 56 per cent of exports, estimated at 45 million pounds, were stored for some time between December and June. Of the rutabagas exported out of storage 92 per cent were moved out during the period December to April, and less than 2 per cent in June. The volume of rutabagas shipped out of storage, for both the export and domestic market, totalled approximately 110 million pounds during the period 1971-74, somewhat more than half of total production.

Table 2: Rutabagas (Turnips): Supply and Disposition, Canada, Crop Years 1961-65 to 1971-74

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74	% Change 1961-65 to 1971-74
- thousand pounds -								
<u>Total Production</u>	400,942	282,177	194,880	195,328	205,356	218,981	203,636	- 49.2
<u>Total Imports (Fresh)</u> (a)	1,043	1,036	1,847	4,666	2,743	2,831	3,022	+189.7
<u>Total Supply Available</u>	401,985	283,213	196,727	199,994	208,099	221,812	206,658	- 51.4
<u>Available for processing</u> (b)	1,360	2,400	2,000	2,000	2,000	2,000	2,000	+ 47.1
<u>Available for fresh market</u>	400,625	280,813	194,727	197,994	206,099	219,812	204,658	- 48.9
From domestic production	399,582	279,777	192,880	193,328	203,356	216,981	201,636	- 49.5
Imported	1,043	1,036	1,847	4,666	2,743	2,831	3,022	+189.7
<u>Total Exports (Fresh)</u> (c)	87,991	86,558	82,959	83,897	77,248	79,809	80,978	- 8.0
<u>Total Domestic Disappearance</u>	313,994	196,655	113,768	116,097	130,851	142,003	125,680	- 60.0
Consumed in processed form	1,360	2,400	2,000	2,000	2,000	2,000	2,000	+ 47.1
<u>Fresh market consumption</u>	312,634	194,255	111,768	114,097	128,851	140,003	123,680	- 60.4
From domestic production	311,591	193,219	109,921	109,431	126,108	137,172	120,658	- 61.3
Imported	1,043	1,036	1,847	4,666	2,743	2,831	3,022	+189.7

(a) Imports unloaded on 12 Canadian markets.

(b) From domestic production.

(c) Includes small volumes of re-exports.

Source: Derived from Statistics Canada and Agriculture Canada data.

According to 1974 unload information, the geographical movement of rutabagas is mainly confined to intraregional transfers. Ontario ships about 1 per cent of its production to other provinces, and Quebec about 2 per cent; in the case of the latter mostly to eastern Ontario.

IMPORTS

Average annual imports of rutabagas and turnips almost tripled from 1 million pounds in the period 1966-70 to 3.0 million pounds in 1971-74 (see Table 2). Aside from 1973, when Mexico appears to have exported about 1.6 million pounds of rutabagas to Canada, imports are almost all from the United States. Small amounts have, in recent years, also been imported from Hong Kong (see Appendix Table 5).

Rutabagas are not ideally suited to U.S. climatic conditions. Consequently, as indicated by 1974 data on unloads of imported produce, imports tend to be largely turnips and not rutabagas. The only rutabaga imports were from the West Coast of the United States to British Columbia. In 1973 Alberta imported about 100 thousand pounds of rutabagas; imports from Mexico went entirely to Quebec. However, for the most part rutabaga imports appear to be restricted to the western region, and all other imports are white summer turnips (see Appendix Table 8).

On average, nearly half of the imports during 1971-74 went to the province of Quebec. Ontario averaged only 150 thousand pounds of imports for this period as opposed to 1.4 million pounds for Quebec. Roughly 19 per cent of imports went to the Atlantic region, and 24 per cent to the western region, British Columbia accounting for 62 per cent of these.

The major portion of the imports enter in the late spring and summer months (see Appendix Table 7). Nearly half of the 3.0 million pounds imported during 1971-74 came in during the months of June and July, accounting for 8.7 and 17.6 per cent of total domestic consumption for these months. About 62 per cent came in during the three months May to July, at which time the stocks in storage had been largely depleted and the domestic fall crop had not yet become available. Imports during the remaining nine months are very small and, generally, account for about 1 per cent of total fresh market consumption (see Appendix Table 4).

EXPORTS

The rutabaga is rather unusual in that it is one of the few vegetables grown in Canada that are exported to the United States in quantity. Over 99 per cent of the rutabagas exported go to the United States (see Appendix Table 9). It is estimated that Canadian rutabagas make up over 40 per cent of the total U.S. supply of turnips and rutabagas combined, and over two-thirds of the rutabaga supply. For the most part, the balance of exports goes to Bermuda and the Islands of St. Pierre and Miquelon; in some years exports of rutabagas have also gone to the United Kingdom.

During the 10 years, 1966-75, annual exports of rutabagas ranged from 76 million to 97 million pounds but normally remain fairly stable between 80 and 85 million pounds. About 93 per cent of the rutabaga exports for the period 1966-70 were from Ontario, a percentage which appears to be remaining level (see Appendix Table 11). A relatively small volume, 2.9 million pounds in 1975, is exported from the Maritimes, almost all from New Brunswick, and even smaller amounts from Quebec and some other provinces. Exports of rutabagas, as a per cent of total production in Ontario, have gone as high, since 1961, as 82 per cent, but never below 40 per cent. The widely ranging proportions of Ontario production exported are illustrative of a desire to maintain a relatively stable export market regardless of fluctuations in domestic production (see Appendix Table 11a).

The distribution of exports of rutabagas by months (see Appendix Table 10) indicates that during 1971-74 about 44 per cent of export sales moved directly from the field following harvest. Ontario, which places 67 per cent of its rutabaga production in storage (see Appendix Table 12) undoubtedly also supplied the major portion of the 45.5 million pounds that moved to foreign markets out of storage in 1971-74. Small amounts are also exported out of storage from the Maritimes, and Quebec, the latter likely accounting for most of the June exports.

PRICES

Excluding the Maritimes, the farm value per pound is usually lowest in Ontario, which has over half of Canadian rutabaga production, has surpluses for shipment to other areas of Canada, and supplies over 90 per cent of rutabagas exports. Farm prices are slightly higher in Quebec, where 62 per cent of the crop is marketed direct from the field. The highest farm values per pound are in British Columbia, followed by the Prairies, both of which depend on shipments from other provinces, and on imports, to supplement their domestic production for much of the year. It can be assumed that, over the long run, the average farm value per pound is a reasonable reflection of farm costs.

Weekly and average monthly wholesale-to-retail price quotations for 1974 on the Halifax, Montreal, Toronto, Winnipeg, and Vancouver markets are shown in Appendix Tables 13a and 13b and in Table 3. It is evident from these data that imports of rutabagas were insufficient on the Toronto market at all times in 1974 to warrant a price quotation, and that quotations occurred only during June, July, and August on the Vancouver, Winnipeg, and Halifax markets, months during which Canadian storage supplies are diminishing rapidly and the new crop is not yet harvested. Price quotations for imported rutabagas were about the same, on these three markets, as domestic rutabagas, which, it should be noted, were available year round.

Table 3: Wholesale to Retail Selling Prices for Domestic and Imported Rutabagas (Turnips)
in Halifax, Montreal, Toronto, Winnipeg, and Vancouver, 1974(a)

	Halifax		Montreal		Toronto		Winnipeg		Vancouver	
	Dom.	Imp.	Dom. (b)	Imp.	Dom. (b)	Imp.	Dom. (b)	Imp.	Dom.	Imp.
	- ¢ per lb. -									
Jan.	9.2	-	7.9	15.6	7.3	-	9.5	-	10.3	-
Feb.	9.2	-	7.8	14.5	7.3	-	9.5	-	10.2	-
Mar.	9.5	-	7.7	12.6	7.2	-	9.3	-	10.8	-
Apr.	10.0	-	7.1	13.5	6.6	-	8.7	-	10.7	-
May	9.4	-	6.1	20.8	5.8	-	8.7	-	11.3	-
June	9.0	-	8.3	20.3	6.4	-	8.8	-	11.9	11.5
July	9.8	13.0	9.0 (c)	16.8	5.8	-	9.2	11.0	12.0	12.2
Aug.	11.4	13.0	6.9 (c)	-	9.2	-	11.7	10.2	11.5	-
Sept.	9.0	-	5.3	-	7.5	-	11.2	-	11.9	-
Oct.	9.0	-	7.3	20.6	7.7	-	11.2	-	11.6	- (d)
Nov.	9.0	-	8.2	18.9	6.9	-	11.0	-	11.7	13.9 (d)
Dec.	9.0	-	7.8	18.5	6.6	-	10.0	-	11.6	20.0

(a) As based on a price per pound comparison of 50-pound bags except Montreal Imported which are 25-pound bags.
 (b) Waxed.
 (c) Plain.
 (d) 25-pound bag.

Source: Appendix Tables 13a and 13b.

Wholesale prices for imported produce were reported during almost the entire year in Montreal. These are believed to be for imports of white-fleshed turnips, not rutabagas, which are a higher-priced product; this probably explains the November and December price quotations for imports on the Vancouver market as well. There were no quotations for imported turnips on the Montreal market in August and September, when the local turnip crop is being harvested. Evidence available to the Board indicates that, in-season, prices of domestic turnips are competitive.

Seasonal average wholesale price quotations for rutabagas on the Halifax market, except for the crop year 1970-71, when prices dropped on all five markets, rose continuously during the period 1961-62 to 1972-73. Wholesale prices in Winnipeg during 1974 were, generally, slightly lower than the wholesale prices in Vancouver (see Appendix Table 13). Wholesale prices in the surplus-producing province of Ontario (Toronto) have been, on average, about 3 to 4 cents per pound less than on the Vancouver market. On the Montreal market, seasonal wholesale price quotations for domestic produce have fluctuated more widely than on the other markets but were in 1974 usually higher than Toronto prices, though lower than those in Vancouver. On the Toronto market wholesale prices for local rutabagas increased from 2.2 cents in 1961-62 to 8.1 cents in 1974-75, while in Winnipeg during the same period wholesale prices increased from 3.5 to 10.0 cents. The higher prices for imports in Montreal reflect a higher proportion of higher-priced turnips as against rutabagas.

COSTS OF PRODUCTION

The Board did not obtain data on the acreage, output and costs of production in the United States. A study of the costs of producing rutabagas in Ontario and British Columbia, in 1974, produced the results shown in Table 4. The major difference occurred in harvesting cost. While Ontario rutabagas are harvested by use of a mechanical harvester, those in British Columbia are picked and loaded manually. Ontario with a 14-ton per acre yield, produced rutabagas for 1.32 cents per pound, nearly 1 cent less than the British Columbia cost of 2.3 cents, based on a yield of 10 tons per acre.

A comparison of the cost of production in Ontario, the major producing region, of 1.32 cents per pound and of the average return to the grower of 3.7 cents, in 1974, suggests that this crop was quite profitable. However, the costs of production exclude marketing (including waxing) and storage costs; these are estimated at between 1.5 and 2.0 cents per pound. Thus, it would appear that total cost, including marketing and storage, may total about 3 cents per pound, leaving about seven tenths of a cent per pound, or \$196 per acre with a 14-ton yield, as return to the average Ontario grower for his labour and management.

Table 4: Rutabagas (Turnips): Production Costs in Ontario and British Columbia, 1974

	<u>Ontario</u>	<u>British Columbia</u>
Yield, lb./acre	28,000	20,000
	- \$ per acre -	
<u>Pre-Harvest or Cultivation Costs</u>		
Labour	35.84	63.43
Machines	11.54	16.01
Custom work	3.15	12.00
Materials	69.32	5.63
Total	119.85	97.07
<u>Harvesting</u>		
Labour	64.75	141.00
Machines	21.97	11.96
Custom work	..	5.00
Total	86.72	157.96
<u>Investment costs</u>		
Land charges	76.89	53.50
Other	87.53	151.11
Total	164.42	204.61
Total Costs ^(a)	370.99	459.64
Total Costs (¢/lb.)	1.32	2.30

(a) Total costs do not contain any storage or marketing costs. For the British Columbia costs, management cost of \$75.00 per acre was not included.

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P.Ag.

TARIFF CONSIDERATIONS

All rutabagas and turnips entering Canada are classified under tariff item 8730-1. The tariff item is currently as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Turnips	Free	Free	30 p.c.

This item is bound under GATT.

Any changes since 1968 have applied only to the M.F.N. rate. Prior to 1968 rutabagas and turnips were included in "vegetables n.o.p." (8731-1), at rates of Free B.P., 10 p.c. M.F.N. and 30 p.c. Gen.

Table 5: Rates of Duty for Selected Periods

<u>Period</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
1968 (Jan. 1) ^(a)	Free	8 p.c.	30 p.c.
1969 (Jan. 1)	Free	6 p.c.	30 p.c.
1969 (June 4)	Free	Free	30 p.c.

(a) Prior to 1968 rutabagas and turnips were under "vegetables n.o.p." (8731-1).

Source: Canadian Customs Tariff.

Canadian exports of rutabagas to the United States have been admitted free since January 1, 1972. In 1968, rutabagas were subject to a duty of 4 cents per 100 pounds, this decreased by 1 cent per hundred pounds in each of the intervening years until the 1972 level was reached.

The Canadian Horticultural Council proposed that the wording of the tariff item be amended to specify both turnips and rutabagas, and that there be no change in rates. No other interested party proposed any change in the tariff treatment of these vegetables.

CONCLUSIONS

Canada produces largely rutabagas; output of turnips is believed to be relatively small. Domestic rutabagas, readily storable, are available, to some extent, on a year-round basis. Local turnips, less storable, are marketed mostly directly from the field. Production of rutabagas has declined sharply, mainly as a result of a decline in domestic fresh table use. Canadian growers, major suppliers of rutabagas to the U.S. markets, have always exported a large proportion of their output because the Canadian climate is more suitable for this crop than that in the United States; at present more than a third is exported.

Canada is nearly self-sufficient with respect to rutabagas; the small volume imported under tariff item 8730-1 enters mostly during those months when stocks of the old crop are running out and the new crop is not yet available in quantity, and are mainly turnips. In view of these considerations the Board concludes that the production of rutabagas and turnips does not require tariff protection and recommends that the present rates of duty be retained, Free B.P., Free M.F.N. and 30 p.c. Gen. The Board recommends further that the present nomenclature be changed to read "Turnips and rutabagas."

RECOMMENDATIONS

The Board recommends that tariff item 8730-1 be deleted,
and that it be replaced by the following item:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Turnips and rutabagas	Free	Free	30 p.c.

Rutabagas (Turnips): Acreage and Number of Farms, by Province
and Region, 1961 and 1971

	1961			1971		
	No. of Acres	Acreage as % of Total	No. of Farms Reporting	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	8,409	28.8	9,292	1,759	18.4	1,028
Nfld.	742	2.5	875	587	6.1	339
P.E.I.	3,527	12.1	2,948	445	4.6	268
N.S.	2,309	7.9	3,080	421	4.4	268
N.B.	1,831	6.3	2,389	306	3.2	153
Central Region	19,089	65.4	12,811	6,690	69.8	1,292
Que.	6,955	23.8	7,425	2,162	22.6	763
Ont.	12,134	41.6	5,386	4,528	47.3	529
Western Region	1,663	5.7	2,838	1,130	11.8	291
Man.	336	1.2	438	276	2.9	38
Sask.	211	0.7	770	48	0.5	44
Alta.	535	1.8	1,059	332	3.5	81
B.C.	581	2.0	571	474	4.9	128
Canada ^(a)	29,167	100.0	24,948	9,580	100.0	2,613

(a) Includes data for Yukon and Northwest Territories.

Source: Census of Canada, 1961 and 1971.

Rutabagas (Turnips): Supply and Disposition Ratios, Canada, Crop Years
1961-65 to 1974-75

	Average 1961-65	Average 1966-70	1971-72	1972-73	1973-74	1974-75	Average 1971-74
- per cent -							
Per Cent of Domestic Production:							
Sold for Processing	0.3	0.9	1.0	1.0	1.0	0.9	1.0
Sold to Domestic Fresh Market	77.7	68.4	56.4	56.0	61.4	62.7	59.2
Exported	22.0	30.7	42.6	43.0	37.6	36.4	39.8
Total Imports as Per Cent:							
of Total Supply Available	0.3	0.4	0.9	2.3	1.3	1.3	1.5
of Total Domestic Disappearance	0.3	0.5	1.6	4.0	2.1	2.0	2.4
Fresh Imports as Per Cent:							
of Fresh Market Availability	0.3	0.4	0.9	2.4	1.3	1.3	1.5
of Fresh Exports	1.2	1.2	2.2	5.6	3.0	3.5	3.7
of Fresh Market Consumption	0.3	0.5	1.7	4.1	2.1	2.0	2.4
Per Cent of Fresh Market Consumption:							
From Domestic Production	99.7	99.5	98.3	95.9	97.9	98.0	97.6
From Imports	0.3	0.5	1.7	4.1	2.1	2.0	2.4
Per Cent of Total Domestic Disappearance:							
Consumed in Processed Form	0.4	1.2	1.8	1.7	1.5	1.4	1.6
Consumed in Fresh Form	99.6	98.8	98.2	98.3	98.5	98.6	98.4

Source: Table 2.

Appendix Table 3

Rutabagas (Turnips): Estimated Monthly Distribution of Fresh Shipments^(a) to Principal Markets, Crop Years 1966-70 to 1974-75

Month	Average 1966-70	Average 1971-74	1971-72	1972-73	1973-74	1974-75
- thousand pounds -						
July	8,695	5,033	5,276	4,049	5,044	5,761
Aug.	14,685	7,861	6,595	8,098	9,206	7,544
Sept.	18,935	11,381	11,652	9,411	10,467	13,992
Oct.	24,732	14,918	10,772	11,928	16,394	20,576
Nov.	20,481	13,216	10,552	13,460	11,980	16,872
Dec.	18,935	11,808	12,641	10,615	9,710	14,266
Jan.	18,356	12,906	10,003	13,898	12,359	15,363
Feb.	17,196	10,900	10,113	10,177	12,611	10,699
Mar.	16,810	10,858	12,751	9,849	9,584	11,248
Apr.	14,491	9,601	9,014	8,098	10,593	10,699
May	12,173	8,082	6,815	6,675	11,980	6,859
June	7,729	4,095	3,737	3,173	6,179	3,292
Year	193,219	120,658	109,921	109,431	126,108	137,172

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 4

Rutabagas (Turnips): Estimated Monthly Distribution of Fresh Market Consumption, Crop Years, 1961-65 to 1971-74

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
- per cent -			- thousand pounds -		per cent	
July	1.2	0.9	5,033	482	5,515	8.7
Aug.	0.1	0.1	7,861	139	8,000	1.7
Sept.	*	0.1	11,381	62	11,443	0.5
Oct.	0.1	0.1	14,918	76	14,994	0.5
Nov.	0.2	0.1	13,216	102	13,318	0.8
Dec.	0.3	0.3	11,808	105	11,913	0.9
Jan.	0.3	0.3	12,906	159	13,065	1.2
Feb.	0.2	0.3	10,900	136	11,036	1.2
Mar.	0.1	0.8	10,858	147	11,005	1.3
Apr.	0.2	0.6	9,601	231	9,832	2.3
May	0.6	1.4	8,082	511	8,593	5.9
June	3.1	4.2	4,095	873	4,968	17.6
Total	0.3	0.5	120,658	3,022	123,680	2.4

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 5

Rutabagas (Turnips): Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Hong Kong</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -					
1966	1,120	-	-	-	1,120
1967	1,050	-	-	-	1,050
1968	770	-	-	-	770
1969	630	-	-	-	630
1970	1,853	-	2	-	1,855
Average 1966-70	1,085	-	*	-	1,085
1971	873	-	2	-	875
1972	2,756	*	24	*	2,781
1973	3,605	1,625	-	1	5,231
1974	1,970	-	5	*	1,975
1975	2,953	-	2	*	2,756
Average 1971-75	2,391	325	7	*	2,724

Source: Derived from Statistics Canada and Agriculture Canada data.

Appendix Table 6

Rutabagas (Turnips): Distribution of Imports by Province and Region, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- per cent -					
Atlantic Region	12.0	32.7	16.8	14.5	19.4
Nfld.	-	13.1	6.5	3.9	6.8
P.E.I.	0.2	1.8	0.3	0.5	0.7
N.S.	7.6	5.7	5.7	1.1	3.9
N.B.	4.2	12.1	6.3	9.0	8.0
Central Region	53.0	39.5	67.7	50.4	56.2
Que.	47.7	32.3	63.7	35.9	49.1
Ont.	5.3	7.2	4.0	4.5	7.1
Western Region	35.0	27.8	15.5	35.2	24.4
Man.	0.1	0.2	0.4	2.6	0.8
Sask.	-	1.1	0.5	1.5	0.8
Alta.	9.9	11.5	5.5	7.2	7.6
B.C.	25.0	15.0	9.1	23.9	15.1
Canada	100.0	100.0	100.0	100.0	100.0

Source: Statistics Canada.

Appendix Table 7

Rutabagas (Turnips): Imports by Month, Crop Years, 1966-70 to 1974-75

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-74</u>	<u>%</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
- thousand pounds -								
July	77	7.4	482	15.9	35		1,014	284
Aug.	14	1.4	139	4.6	35	114	386	22
Sept.	14	1.4	62	2.0	-	67	24	158
Oct.	14	1.4	76	2.5	-	78	86	141
Nov.	14	1.4	102	3.4	35	160	84	128
Dec.	63	6.0	105	3.5	70	95	80	173
Jan.	56	5.4	159	5.3	66	236	198	136
Feb.	56	5.4	136	4.5	88	128	154	172
Mar.	133	12.8	147	4.9	114	259	79	135
Apr.	84	8.1	231	7.6	187	143	91	502
May	168	16.2	511	16.9	324	989	233	499
June	343	33.1	873	28.9	893	1,802	314	481
Total	1,036	100.0	3,022	100.0	1,847	4,666	2,743	2,831

Source: Agriculture Canada.

Appendix Table 8

Rutabagas (Turnips): Percentage Distribution of Imports from the United States by State of Origin, by Region, 1972-1974

	<u>Cal.</u>	<u>N.C.</u>	<u>Ariz.</u>	<u>Tex.</u>	<u>Va.</u>	<u>N.J.</u>	<u>Others</u>	<u>Total</u>
- per cent -								
<u>1972</u>								
Atlantic Region	11.3	28.6	55.5	-	2.1	2.5	-	100.0
Central Region	13.5	16.7	2.4	5.3	13.2	46.1	2.8	100.0
Western Region	86.6	-	3.1	-	-	-	10.3	100.0
Canada	44.8	10.6	7.2	2.6	6.5	22.5	5.8	100.0
<u>1973</u>								
Atlantic Region	2.6	-	80.0	-	-	17.4	-	100.0
Central Region	46.5	-	1.8	10.7	9.5	27.2	4.3	100.0
Western Region	83.6	-	1.7	-	-	-	14.7	100.0
Canada	64.6	-	4.4	4.7	4.2	12.5	9.6	100.0
<u>1974</u>								
Atlantic Region	-	-	-	-	-	100.0	-	100.0
Central Region	7.6	5.2	-	23.7	-	45.3	18.1	100.0
Western Region	66.8	-	5.2	-	-	-	28.0	100.0
Canada	41.6	2.0	3.0	9.2	-	21.0	23.2	100.0

Source: Agriculture Canada.

Appendix Table 9

Rutabagas (Turnips): Exports by Country of Destination, 1966-1975

<u>Year</u>	<u>United States</u>	<u>U.K.</u>	<u>Bermuda</u>	<u>Trinidad and Tobago</u>	<u>Guyana</u>	<u>St. Pierre and Miquelon</u>	<u>French W.I.</u>	<u>Total</u>
- thousand pounds -								
1966	75,919	-	45	4	-	1	-	75,969
1967	83,681	-	46	3	-	-	-	83,731
1968	97,152	-	36	3	-	3	41	97,234
1969	84,735	121	43	3	-	8	-	84,909
1970	80,071	10	18	-	2	14	-	80,114
Average 1966-70	84,312	26	38	3	*	5	8	84,392
1971	88,792	-	18	24	-	3	-	88,838
1972	79,061	26	28	-	-	11	-	79,125
1973	81,307	-	33	-	-	10	-	81,350
1974	80,624	-	12	-	-	4	-	80,640
1975	81,775	40	9	-	-	*	-	81,824
Average 1971-75	82,312	13	20	5	-	6	-	82,355

Source: Statistics Canada.

Appendix Table 10

Rutabagas (Turnips): Exports by Month, Crop Years, 1966-70 to 1974-75

<u>Month</u>	<u>Average 1966-70</u>	<u>Average 1971-74</u>	<u>1971-72</u>	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>
- thousand pounds -						
July	333	499	356	529	716	395
Aug.	2,952	3,488	3,596	3,863	3,824	2,667
Sept.	9,165	7,573	7,579	7,613	7,289	7,811
Oct.	11,587	9,636	10,894	9,434	8,907	9,307
Nov.	15,365	14,336	15,281	14,363	13,453	14,246
Dec.	10,710	9,754	10,877	8,949	8,015	11,174
Jan.	11,013	9,557	9,081	11,199	8,381	9,568
Feb.	9,366	8,648	9,205	8,785	7,734	8,867
Mar.	8,213	8,002	8,835	8,391	7,515	7,266
Apr.	4,904	5,896	5,093	6,279	6,619	5,594
May	2,288	2,924	1,912	3,902	3,414	2,466
June	646	665	248	588	1,378	445
Total	86,542	80,976	82,958	83,896	77,246	79,805

Appendix Table 11

Rutabagas (Turnips): Exports by Province and Region, 1972-1975

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -			
Atlantic Region	3,646	4,150	5,118	2,875
N.S.	38	41	66	52
N.B.	3,608	4,109	5,052	2,824
Central Region	74,852	76,900	75,267	78,901
Que.	284	1,020	1,198	538
Ont.	74,568	75,880	74,069	78,363
Western Region	627	299	255	47
Man.	600	280	241	47
Sask.	-	-	-	-
Alta.	-	1	-	-
B.C.	27	18	14	*
Canada	79,125	81,350	80,640	81,824

Source: Statistics Canada

Appendix Table 11a

Rutabagas (Turnips): Ontario Export, 1961 - 1974

<u>Year</u>	<u>thousand pounds</u>	<u>Per Cent of Ontario Production</u>
1961	92,798	33
1962	66,130	46
1963	76,844	53
1964	79,090	45
1965	78,342	45
Average 1961-65	78,641	43
1966	68,464	53
1967	85,628	50
1968	81,576	40
1969	89,540	82
1970	67,510	47
Average 1966-70	78,544	52
1971	82,022	77
1972	74,568	63
1973	75,880	65
1974	74,069	62

Source: "Rutabagas (Turnips) Production, Production Costs in Canada," prepared for the Tariff Board by G.A. Fisher, Farm Economics Branch, Ontario, Ministry of Agricultural and Food, Chatham, Ontario.

Rutabagas (Turnips): Monthly Storage Holdings, on the 1st
of the Month, 1971-72 to 1974-75

	Maritime ^(a) Region	Quebec	Ontario	Central Region	Canada
	- thousand pounds -				
<u>1971-72</u>					
Nov.	17,650	14,498	74,555	89,053	106,703
Dec.	15,525	13,057	71,388	84,445	99,970
Jan.	12,200	9,304	56,634	65,938	78,138
Feb.	10,700	6,566	41,486	48,052	58,752
Mar.	7,530	5,143	26,662	31,805	39,335
Apr.	5,030	4,055	12,380	16,435	21,465
May	1,500	1,977	3,452	5,429	6,929
<u>1972-73</u>					
Nov.	18,520	9,275	65,598	74,873	93,393
Dec.	16,280	9,544	73,088	82,632	98,912
Jan.	12,400	7,045	57,628	64,673	77,073
Feb.	4,250	5,122	40,378	45,500	49,750
Mar.	1,500	3,172	27,531	30,703	32,203
Apr.	500	2,452	14,821	17,273	17,773
May	120	1,390	5,369	6,759	6,879
<u>1973-74</u>					
Nov.	21,240	13,114	91,549	104,663	125,903
Dec.	18,606	13,068	86,742	99,810	118,416
Jan.	10,000	11,305	76,366	87,671	97,671
Feb.	8,000	9,625	59,556	69,181	77,181
Mar.	5,000	6,996	44,501	51,497	56,497
Apr.	3,000	5,985	26,445	32,430	35,430
May	2,000	3,358	14,078	17,436	19,436
<u>1974-75</u>					
Nov.	15,000	11,755	79,011	90,766	105,766
Dec.	10,000	11,149	70,078	81,227	91,227
Jan.	7,500	9,502	55,299	64,801	72,301
Feb.	5,000	6,382	37,232	43,614	48,614
Mar.	2,500	4,321	22,214	26,535	29,035
Apr.	1,250	3,620	11,945	15,565	16,815
May	559	2,711	2,605	5,316	5,875
<u>Average 1971-74</u>					
Nov.	18,103	12,161	77,678	89,839	107,941
Dec.	15,103	11,705	75,324	87,029	102,131
Jan.	10,525	9,289	61,482	70,771	81,296
Feb.	6,988	6,924	44,663	51,587	58,574
Mar.	4,133	4,908	30,227	35,135	39,268
Apr.	2,445	4,028	16,398	20,426	22,871
May	1,045	2,359	6,376	8,735	9,780

(a) Inland P.E.I. only.

Source: Agriculture Canada.

Rutabagas (Turnips): Weekly Wholesale to Retail at Winnipeg and Vancouver, 1974

	Winnipeg				Vancouver		
	Cal.	Man.		Ont.	Cal. (a)	B.C. (b)	Alta. (c)
		Plain	Waxed				
	-	50-lb. bag		Waxed	-	50-lb. bag	-
- cents per pound -							
Jan. 4	8.8	9.6			10.4		
11	8.3	9.5			10.1		
18	8.8	9.5			10.3		
25	8.3	9.5			10.3		
Feb. 1	8.3	9.5			10.0		
8	8.3	9.5			10.0		
15	8.3	9.3			10.0		
22	8.3	9.5			10.8		10.8
Mar. 1	7.8	9.5			10.9		10.9
8	7.8	9.5			10.9		10.9
15	7.8	9.5			10.9		10.9
22	7.8	9.3			10.5		10.5
29	7.3	8.8			11.0		11.0
Apr. 5	7.5	8.8	8.8		11.0		11.0
12	7.5	8.6	8.6	8.8	11.0		11.0
19		8.9	8.9	8.6			10.4
26		8.6	8.6	8.6			10.5
May 3		8.6	8.6	8.6			10.5
10		8.6	8.6	8.6	11.1		11.1
17		8.8	8.8	8.8	11.8		11.8
24		8.9	8.9	8.9	11.5		11.5
31		8.7	8.7	8.7	11.4		11.4
June 7		8.7	8.7	8.7	12.0		12.0
14		8.7	8.7	8.7	12.0		12.0
21		8.7	8.7	8.7	11.5		11.5
28		9.0	9.0	9.0	12.2		12.2

Rutabagas (Turnips): Weekly Wholesale to Retail at Winnipeg and Vancouver, 1974

		Winnipeg		Ont.	Vancouver		
		Cal.	Man.		Cal. (a)	B.C. (b)	Alta. (c)
			Plain	Waxed			
			-	50-lb. bag	-	50-lb. bag	-
- cents per pound -							
July	5						
	12	10.9			12.2	11.5	
	19	11.2		9.5		12.3	
	26	10.9		9.0		12.3	
Aug.	2	10.7				11.9	
	9	11.2				10.7	
	16	9.5	12.3			11.7	
	23	9.5	11.7			11.7	
	30		11.7			11.6	
Sept.	6		11.0			11.8	
	13	10.5				11.8	
	20	10.0				12.0	
	27	10.0	11.3			12.0	
Oct.	4	10.3	11.0			11.6	
	11	10.0	10.8			11.6	
	18	9.8	11.3			11.6	
	25	10.3	11.1			11.6	
Nov.	1	10.3	11.5			11.6	
	8	10.0	11.5			11.6	
	15	10.3	11.0		14.8	11.6	
	22	10.3	10.8		14.8	11.6	
	29	10.3	10.8		13.0	12.0	
Dec.	6	10.0	10.8		13.0	11.6	
	13	9.6	10.2		21.7	11.6	
	20	9.4	9.5		22.0	11.6	
	27	9.1	9.3	9.3	22.0	11.6	
					14.3	11.6	

(a) From November 8 to December 27; 25-pound bags from California.

(b) From May 10 to July 5, Ontario quotations.

(c) Includes Manitoba quotations from May 10 to July 5.

Source: Agriculture Canada.

SPINACH

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SPINACH

Spinach, a vegetable native to Asia, was introduced into Europe in the thirteenth and fourteenth century. It was grown on the North American continent as early as the nineteenth century.

The spinach generally grown and marketed in Canada is the species Spinacia oleracea, which has two varieties, prickly-seeded spinach (S. oleracea) and round-seeded spinach (S. oleracea var. inermis). The name spinach also applies to a vegetable known variously as mountain spinach, orach, garden orach or sea purslane (Atriplex hortensis) and to New Zealand spinach (Tetragonia expansa); the Board has no information as to whether these vegetables are grown or consumed in Canada. Spinach beet is a name sometimes applied to chard, a member of the beet family, and there is a vegetable of the cabbage family known as spinach mustard or tendergreen (Brassica perotridis).

Spinach can be produced in all agricultural regions of Canada. It is a hardy, cool-season crop which can withstand temperatures of 5°C with little or no injury and, in general, is a short season crop, maturing 6-10 weeks after planting, depending on growing temperature. For optimum quality, spinach requires cool temperatures when approaching harvest maturity; it is grown in the spring and fall as the long days and higher temperatures of midsummer causes this vegetable to bolt to seed thus destroying its market value. The spring crop is usually followed by another vegetable crop, e.g., lettuce or carrots, after which the fall crop may be planted. Canada has an excellent climate in the spring and fall for the production of a high quality spinach crop.

Spinach grows well on a wide range of soils but sandy loams and muck soils are more suitable than the heavier soils. For early crops, sandy loams respond best; silt loams and muck soils are used where earliness is not a factor and higher yields are the main aim. Good drainage is very important for commercial production. All phases of production are easily mechanized so that little hand labour is required.

Spinach is sold off the farm in bulk to wholesalers and pre-packers who wash, grade, and usually pack it in polyethylene bags for the fresh market. Processing spinach is normally produced under contract, and is shipped in bulk. The storage period for this vegetable is short (seven days at 0°C and at a very high humidity).

In terms of overall vegetable production spinach is a relatively minor crop, the farm value of production averaging about $\frac{1}{2}$ million dollars in recent years. Per capita consumption has declined slightly since 1961.

ACREAGE, PRODUCTION AND FARM VALUE

As a result of declining acreage and yield, spinach production in Canada has dropped markedly since 1961 (see Table 1). Annual production averaged 5.8 million pounds in 1971-74 compared to 7.4 million pounds in 1966-70 and 11.4 million pounds in 1961-65; production levels in 1971-74 represent a decline of 49.2 per cent over the 1961-65 average. Ontario, with the highest yields and largest share of acreage, accounts for most of domestic production, about 85 per cent in 1971-74. Production data are recorded only for Ontario, Quebec, and British Columbia; and the output of these latter two provinces is minor.

In all producing provinces the acreage devoted to this vegetable has diminished between 1961-65 and 1971-74, most notably in Ontario and British Columbia. The average yield per acre of spinach in Canada has also exhibited a steady decline since 1961, dropping from 10,689 pounds in 1961-65 to 6,735 pounds in 1971-74, a decline of 37 per cent. Average yields diminished in all three producing provinces in this period but decreased to a lesser extent in Quebec than elsewhere. Ontario yields have been two to three times those in Quebec and in most years have significantly exceeded the yields obtained in British Columbia.

Due to the upward trend in farm prices, the total farm value of spinach production increased slightly between 1961-65 and 1971-74 despite the marked drop in production. The total farm value of this vegetable crop in 1971-74 averaged \$534,000 as against \$519,000 in 1961-65 and \$391,000 in 1966-70. In 1971-74 Ontario accounted for about 79 per cent of total farm value.

Returns per pound to growers have increased markedly since 1961. Spinach growers received, on average, 9.2 cents per pound in 1971-74, double the average of 4.6 cents per pound received in 1961-65. A particularly notable rise in the per pound farm price took place in British Columbia where output dropped sharply. As a result unit farm values in British Columbia are now well above those in Quebec and Ontario, the latter being the lowest, whereas average farm prices in the three producing provinces were about the same in 1961-65.

While the Board was offered no satisfactory explanation, the major decline in domestic spinach production warrants some comment. The pronounced production decrease evident is believed to have resulted from certain structural changes in the nature of vegetable production generally, together with risk factors associated with this crop more particularly.

With reference to structural changes, there is in evidence in recent years a trend toward the cultivation of one or two major crops in order to obtain certain advantages in scale and specialization. This trend is related to the mechanization of seeding, planting and harvesting and to the more costly, and often scarce, supply of labour; it has meant that acreage in minor crops such as spinach have been sacrificed, such vegetables usually being associated with multicrop operations entailing small acreages for each crop.

Table 1: Spinach: Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Quebec	176	188	160	160	160	170	163	- 7.4
Ontario	760	564	500	850	550	630	633	- 16.7
B.C.	<u>128</u>	<u>114</u>	<u>70</u>	<u>60</u>	<u>60</u>	<u>60</u>	<u>63</u>	- 50.8
Canada	<u>1,064</u>	<u>866</u>	<u>730</u>	<u>1,070</u>	<u>770</u>	<u>860</u>	<u>858</u>	- 19.4
- Production, '000 lb. -								
Quebec	693	854	464	592	608	459	531	- 23.4
Ontario	9,478	5,713	4,747	6,548	3,472	4,715	4,871	- 48.6
B.C.	<u>1,202</u>	<u>785</u>	<u>396</u>	<u>269</u>	<u>460</u>	<u>387</u>	<u>378</u>	- 68.6
Canada	<u>11,373</u>	<u>7,352</u>	<u>5,607</u>	<u>7,409</u>	<u>4,540</u>	<u>5,561</u>	<u>5,779</u>	- 49.2
- Average Yield, lb. -								
Quebec	3,938	4,543	2,900	3,700	3,800	2,700	3,258	- 17.3
Ontario	12,471	10,129	9,494	7,704	6,313	7,484	7,695	- 38.3
B.C.	<u>9,391</u>	<u>6,886</u>	<u>5,657</u>	<u>4,483</u>	<u>7,667</u>	<u>6,450</u>	<u>6,000</u>	- 36.1
Canada	<u>10,689</u>	<u>8,490</u>	<u>7,681</u>	<u>6,924</u>	<u>5,896</u>	<u>6,466</u>	<u>6,735</u>	- 37.0
- Farm Value, \$'000 -								
Quebec	35	54	46	75	69	49	60	+ 71.4
Ontario	434	278	319	578	246	540	421	- 3.0
B.C.	<u>50</u>	<u>59</u>	<u>45</u>	<u>24</u>	<u>77</u>	<u>68</u>	<u>54</u>	+ 8.0
Canada	<u>519</u>	<u>391</u>	<u>410</u>	<u>677</u>	<u>392</u>	<u>657</u>	<u>534</u>	+ 2.9
- Farm Value, ¢ per lb. -								
Quebec	5.1	6.3	9.9	12.7	11.3	10.7	11.3	+121.6
Ontario	4.6	4.9	6.7	8.8	7.1	11.5	8.6	+ 87.0
B.C.	<u>4.2</u>	<u>7.5</u>	<u>11.4</u>	<u>8.9</u>	<u>16.7</u>	<u>17.6</u>	<u>14.3</u>	+240.5
Canada	<u>4.6</u>	<u>5.3</u>	<u>7.3</u>	<u>9.1</u>	<u>8.6</u>	<u>11.8</u>	<u>9.2</u>	+100.0

Source: Statistics Canada.

Furthermore, spinach is a crop with a relatively short growing period at the beginning and the end of the growing season, and is therefore a high risk undertaking, a factor aggravated by the frequent destruction of the young stands by drifting soil and dust. The Board believes that these factors have had an adverse influence on Canadian spinach production.

SUPPLY AND DISPOSITION

Spinach is grown in Canada for fresh market consumption and for processing, the latter principally for freezing. Based on the 1971-74 period, the Board estimates that two-thirds of this crop is marketed fresh, the remainder being supplied to domestic processors (see Table 2). A comparison with data for earlier years indicates that about the same proportion of this crop was marketed fresh in 1966-70, although in the 1961-65 period a somewhat higher share of production was destined for the fresh market as opposed to processing. There are no recorded exports of spinach, in either fresh or processed form.

Domestic consumption of this vegetable, in both the fresh and processed form, has remained more or less constant between 1961-65 and 1971-74 at 20.7 and 20.2 million pounds, respectively. Inasmuch as production has diminished greatly, imports have expanded to meet a much larger share of domestic demand.

Table 2 shows that annual imports of both fresh spinach and processed spinach have risen markedly since 1961; total imports, in fresh equivalent weight, were 9.4 million pounds in 1961-65 compared to 14.4 million pounds in 1971-74, an increase of 53 per cent. In the same period, spinach production fell by 49 per cent. In the fresh market, in 1961-65 the larger part of domestic demand (53 per cent) was supplied by domestic output; in contrast, in 1971-74, domestic growers supplied only 28 per cent of the fresh market. With reference to the domestic market for processing spinach, a similar trend is evident. In 1961-65, the domestic output of processed spinach products, mainly frozen spinach, met an estimated 61 per cent of the Canadian market; this share declined rapidly in following years, to 30 per cent in 1971-74. The Board found no evidence of any significant quantity of fresh spinach being entered for processing in recent years, and imports are assumed to be for fresh market sale only.

In per capita terms the consumption of spinach, in both fresh and processed form, appears to have decreased slightly between 1961-65 and 1971-74, from an estimated 1.10 pounds to 0.92 pound. There has been a decline in the popularity of spinach as a fresh table vegetable, per capita fresh consumption being 0.83 pound in 1961-65 as against 0.63 pound in 1971-74, which has been only slightly offset by an increase in processed spinach consumption from 0.26 pound in 1961-65 compared to 0.29 pound in 1971-74.

The distribution of the domestic and imported supply is distinctly seasonal. Over the 1971-74 period about 94 per cent of domestic fresh market production occurred in the six months from May to October, inclusive (see Appendix Table 3). The remaining 6 per

Table 2: Spinach: Supply and Disposition, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb. -				
<u>Total Production</u>	11,373	7,352	5,607	7,409	4,540	5,561	5,779	- 49.2
<u>Total Imports</u>	9,394	10,568	12,297	13,186	15,355	16,704	14,386	+ 53.1
Fresh	7,450 (b)	7,832	8,774	8,959	10,376	11,522	9,908	+ 33.0
Processed (frozen) (a)	1,944	2,736	3,523	4,227	4,979	5,182	4,478	+130.3
<u>Total Domestic Disappearance</u>	20,767	17,920	17,904	20,595	19,895	22,265	20,165	- 2.9
<u>Consumed in processed form:</u>	5,007 (c)	5,184	5,373 (d)	6,672 (d)	6,477 (d)	7,017 (d)	6,385 (d)	+ 27.5
From domestic production	3,063	2,448	1,850	2,445	1,498	1,835	1,907	- 37.7
Imported processed	1,944	2,736	3,523	4,227	4,979	5,182	4,478	+130.3
<u>Fresh Market Consumption:</u>	15,760	12,736	12,531	13,923	13,418	15,248	13,780	- 12.6
From domestic production	8,310	4,904	3,757	4,964	3,042	3,726	3,872	- 53.4
Imported	7,450	7,832	8,774	8,959	10,376	11,522	9,908	+ 33.0

823

- (a) Converted to fresh equivalent on the basis of 1.43 lb. fresh per 1 lb. frozen.
 (b) Three-year average (1963-65).
 (c) Includes a small amount of fresh imports for processing.
 (d) Estimated by Tariff Board.

Source: Derived from Statistics Canada and Agriculture Canada data.

cent was probably comprised mainly of small volumes of greenhouse production. Imports, on the other hand, were imported mostly, 78 per cent, during the period December to May, when domestic produce is not available (see Appendix Table 5). Significant volumes are, however, also imported during the domestic growing season.

Appendix Table 4 provides a monthly breakdown of consumption between domestic and imported supplies; in 1971-74 domestically grown spinach met the major part of fresh market demand only in the four main harvest months of June to September; imports comprised the great bulk of such demand in the other eight months of the year. The further analysis given below shows that imports have taken an increasing share of the domestic fresh market during the "on-season" production period of May to October, inclusive and also in other months. Imports accounted for 47 per cent of annual fresh market consumption in 1961-65, a share which reached 72 per cent during 1971-74.

Table 3: Spinach: Production, Imports and Consumption,
Fresh Market, Selected Averages, 1961-1974

	Average 1961-65	Average 1966-70	Average 1971-74
	- '000 lb. -		
Production:			
On-season (a)	7,351	4,510	3,626
Off-season (b)	959	394	246
Total	8,310	4,904	3,872
Imports:			
On-season (a)	1,608	1,862	2,703
Off-season (b)	5,842	5,970	7,205
Total	7,450	7,832	9,908
Consumption:			
On-season (a)	8,959	6,373	6,332
Off-season (b)	6,801	6,363	7,448
Total	15,760	12,736	13,780
Imports as % of Consumption:			
On-season (a)	17.9	29.4	42.7
Off-season (b)	85.9	93.8	96.7
Total	47.3	61.5	71.9

(a) May to October growing season.

(b) January to April, November and December.

Source: Derived from Statistics Canada, Agriculture Canada and National Revenue.

Unload data show very little interregional trade movement in this vegetable, with no such trade occurring in 1974 except for a small volume of Ontario production, less than 5 per cent, shipped into Manitoba.

IMPORTS

Imports of fresh spinach originate in most years entirely in the United States; in certain years this vegetable has also entered from Mexico or from Trinidad and Tobago (see Appendix Table 6). The principal U.S. growing areas supplying the Canadian market are in Texas, California, and New Jersey (see Appendix Table 7). As noted in Appendix Table 8, Ontario and Quebec account for the largest share of imports, about 75 per cent in 1971-74.

EXPORTS

As already indicated trade data does not record any exports of fresh spinach, or of processed spinach, and such trade, if any, may be taken as being negligible.

PRICES

As presented earlier (see Table 1) the average farm price per pound for spinach was 9.2 cents in 1971-74, being somewhat less in Ontario, the major domestic source of supply. This average price comprises both spinach sold for the fresh market and for processing and masks the fact that, as determined from confidential data provided by processors, farm prices for processing spinach are only a fraction of fresh market prices; the latter appear to average considerably more than 10 cents per pound. The very pronounced price differential between fresh market and processing spinach is well demonstrated in the U.S. data presented in Appendix Tables 9(a) and 9(b); in the United States, the per pound farm value for processing spinach averaged only 2.4 cents in 1971-74 compared to 14.5 cents per pound for spinach sold on the fresh market.

Although the Board compiled wholesale to retail price data with reference to the five principal Canadian markets, these data, while presented for most other crops, are not shown in the case of spinach. In 1974, there were only a few wholesale quotations for domestically grown spinach, such quotations pertaining largely to imports; moreover, this vegetable is marketed in a number of retail packs and containers of various sizes, and lack of comparability prevented any meaningful conclusions from being drawn. Wholesale price data did indicate, however, a much lower per pound price for bulk sizes (usually 20-pound cartons or 18-pound bushel baskets) than for retail packages (usually 10- to 16-ounce cellos).

The Board was unable to collect direct information, by field survey, with respect to the breakdown of the landed cost of imported spinach at the various market centres. However, freight charges for lettuce, a similar leafy vegetable with a low weight-volume ratio, are

probably indicative of freight charges for spinach. In the case of lettuce, per pound freight charges were found normally to range between 3.5 to 5.0 cents per pound for imports into the central provinces. Given, in 1974, an average f.o.b. price of 12.8 cents per pound for spinach (as determined by import data), freight charges for spinach entered into the principal importing provinces of Ontario and Quebec would appear to amount to 20-30 per cent of landed cost. Freight charges therefore are in themselves, one of the important elements in determining the landed cost of imported spinach, and provide domestic growers supplying local markets with a substantial level of protection against import competition.

CANADA-UNITED STATES COMPARISONS

Over the 1971-74 period spinach production in the United States averaged 395.3 million pounds, California being by some margin the most important producer (see Appendix Tables 9a and 9b). About 85 per cent of the U.S. crop is grown for processing whereas in Canada a much smaller proportion of this crop, about one-third in 1974, is grown for this purpose. Canada, however, imports considerable volumes of processed (frozen) spinach. U.S. data show that yields are much higher in certain major U.S. growing regions than in Canada. California yields in 1971-74 averaged 19,710 pounds per acre for processing spinach and 14,708 pounds for fresh market spinach; this compares, to a much lower Canadian average of 6,735 pounds per acre. (This latter yield figure cannot be broken down into separate estimates for processing and fresh market spinach).

The Board could not obtain production cost data for the United States or Canada enabling any direct comparison of production cost differences. However, the high yields in California suggest considerable cost advantages for growers in that state vis-à-vis Canadian producers.

TARIFF CONSIDERATIONS

Fresh spinach is classified under present tariff item 8723-1, which would also apply to any importations of mountain spinach or New Zealand spinach:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Spinach	Free	Free	30 p.c.

Spinach has been free of duty under the Most-Favoured-Nation Tariff since April 10, 1959 and this rate is bound under GATT. The M.F.N. rate, set at 27½ p.c. in 1930, was reduced to 15 p.c. on January 1, 1936 and to 10 p.c. on January 1, 1939, as a result of the Canada-United States Trade Agreements; the 10 p.c. rate was bound under GATT with effect from January 1, 1948 and became the statutory rate in 1950. The B.P. rate has been Free and the Gen. rate 30 p.c., since 1930; the Gen. rate applied to importations from the United States until 1935 and to those from Mexico until 1946.

The f.o.b. import price per pound for spinach, according to trade data, was 12.2 cents and 12.8 cents in 1973 and 1974, respectively; average import price has been increasing, being 11.8 cents per pound in 1971-74 as against 9.3 cents per pound in 1966-70.

Under the Tariff Schedules of the United States, spinach is entered under item 137.85 of part 8 - Vegetables, subpart A - Vegetables, Fresh, Chilled, or Frozen. The rate of duty applicable to imports from Canada is 25 per cent ad valorem; item 137.85 pertains to "other" vegetables not specifically provided for.

The Canadian Horticultural Council requested that the 10 p.c. duty previously pertaining to spinach prior to 1959 be reinstated with the seasonal period of application to be 12 weeks. The Council also requested that a further packaging duty be introduced for spinach when entered in consumer packs of 5 pounds or less, such duty to be an additional 10 p.c. under the B.P., M.F.N., and Gen. schedules. The most common retail packs are in sizes of 1 pound or less. Representations made by the National Farmers Union, the Canadian Importers Association Inc. and the Consumers' Association of Canada respecting vegetables generally would also apply to spinach. The Canadian Food Processors Association made no specific proposal respecting fresh spinach.

The Horticultural Council proposal of a 10 p.c. M.F.N. level of protection, would have a specific duty equivalent, on the basis of an average import price of 12.8 cents per pound in 1974, of some 1 $\frac{1}{4}$ cents per pound. This proposal would increase the cost of spinach to the Canadian consumer during the proposed 12-week period, and would presumably increase the price to the grower. It is not at all clear, however, whether the proposed rate would be effective in reducing the level of import penetration, or even to arrest its growth; the industry already enjoys a high level of non-tariff protection, in the form of transportation charges, which has, moreover, increased in recent years as well.

The Board estimated the costs and benefits of the Council's proposed 10 p.c. rate, applicable for a maximum period of 12 weeks. On the basis of 1974 production and imports it was estimated that Canadian consumers would, in total, pay \$68,000 more, or roughly 1 $\frac{1}{4}$ cents per annum for a family of four. Grower benefits were, accordingly, calculated at \$34,900.

CONCLUSIONS

In the case of spinach a particularly pronounced decline has taken place in domestic production, and there has been a marked increase in imports of both fresh market and processed spinach. Between 1961-65 and 1971-74 the Canadian production of this vegetable dropped by 49 per cent while imports, both in fresh and processed form, rose by 53 per cent.

As a consequence of falling domestic output and rising imports, domestic growers have relinquished the bulk of the domestic fresh market to import competition. In 1961-65 domestically grown spinach accounted for the largest part of fresh demand, 53 per cent; in 1971-74 domestic growers supplied a much lesser share of that fresh market, 28 per cent. This market loss has occurred, furthermore, principally in those months constituting the main Canadian production season. In the market for processed spinach a similar trend has taken place. In 1961-65 spinach processed from domestic acquisitions accounted for 61 per cent of Canadian processed demand, mainly for frozen spinach; in contrast, the comparable figure for 1971-74 was only about 30 per cent. Sharply increased imports of already processed spinach have replaced a significant volume of domestic marketings which might otherwise have been made by Canadian growers selling to domestic processors.

Data available to the Board indicate that per capita consumption of spinach is declining. It also appears that structural changes in land use have occurred, and that much of the more productive land has been shifted to other crops. Hence, yields are now much greater in growing areas in the United States, and consumers would seem to be better served by allowing free access to imports at competitive prices. The Board in fact sees no valid reason at this time to attempt to reverse an underlying trend of the nature already described, particularly when there is no strong reason to expect that the re-imposed tariff would succeed in its purpose.

With respect to the Council's proposal that spinach be added to those vegetables subject to additional packaging duty, it may be noted that the Board's considerations concerning the general issue of pre-packaged fresh vegetables are presented elsewhere in this Reference. The Board recommends that spinach be made subject, when entered in consumer pre-packs of five pounds or less, to packaging duties of 5 p.c. M.F.N. and 10 p.c. Gen.; such duty to be applied for a maximum of 12 weeks.

RECOMMENDATIONS

The Board recommends that present tariff item 8723-1 be deleted from schedule "A" of the Customs Tariff and that the following item be inserted:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Spinach	Free	Free	30 p.c.

When imported in packages five pounds or less, each, see additional duty following item 8748-1, which may apply.

Appendix Table 1

Spinach: Acreage and Number of Farms, by Province
and Tariff Region, 1961 and 1971

	<u>1961</u>		<u>1971</u>		
	<u>No. of Acres</u>	<u>Acreage as % of Total</u>	<u>No. of Acres</u>	<u>Acreage as % of Total</u>	<u>No. of Farms Reporting</u>
Atlantic Region	29	3.0	21	3.3	38
P.E.I.	13	1.4	1	0.2	6
N.S.	13	1.4	10	1.6	23
N.B.	3	0.3	10	1.6	9
Central Region	831	86.5	584	90.5	195
Que.	188	19.6	162	25.1	52
Ont.	643	66.9	422	65.4	143
Western Region	101	10.5	40	6.2	79
Man.	12	1.2	6	0.9	10
Sask.	3	0.3	2	0.3	5
Alta.	3	0.3	3	0.5	13
B.C.	83	8.6	29	4.5	51
Canada	961	100.0	645	100.0	312

Source: Census of Canada, 1961 and 1971.

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- per cent -						
<u>Per Cent of Domestic Production:</u>							
<u>Sold for Processing</u>	26.9	33.3	33.0	33.0	33.0	33.0	33.0
<u>Sold to Domestic Fresh Market</u>	73.1	66.7	67.0	67.0	67.0	67.0	67.0
<u>Exported</u>	-	-	-	-	-	-	-
<u>Total Imports as Per Cent:</u>							
<u>of Domestic Disappearance</u>	45.2	59.0	68.7	64.0	77.2	75.0	71.3
<u>Fresh Imports as Per Cent:</u>							
<u>of Fresh Market Consumption</u>	47.3	61.5	70.0	64.3	77.3	75.6	71.9
<u>of Domestic Production</u>	65.5	106.5	156.5	120.9	228.5	207.2	171.4
<u>Processed Imports as Per Cent:</u>							
<u>of Consumption in Processed Form</u>	38.8	52.8	65.6	63.4	76.9	73.8	70.1
<u>of Total Domestic Disappearance</u>	9.4	15.3	19.7	20.5	25.0	23.3	22.2
<u>Per Cent of Total Domestic Disappearance:</u>							
<u>Consumed in Processed Form</u>	24.1	28.9	30.0	32.4	32.6	31.5	31.7
<u>Consumed in Fresh Form</u>	75.9	71.1	70.0	67.6	67.4	68.5	68.3

Source: Table 2

Appendix Table 3

Spinach: Estimated Monthly Distribution of Fresh Shipments^(a)
1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
			- thousand pounds -			
Jan.	-	27	64	-	42	-
Feb.	*	20	64	15	-	-
Mar.	*	19	-	45	30	-
Apr.	143	46	64	30	76	15
May	430	537	812	343	475	518
June	1,074	702	1,063	918	344	481
July	1,217	598	436	745	754	455
Aug.	752	824	751	963	642	939
Sept.	501	557	252	844	399	734
Oct.	537	411	188	774	143	537
Nov.	215	111	-	283	128	34
Dec.	36	23	64	5	9	15
Total	4,904	3,872	3,757	4,964	3,042	3,726

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada data and Agriculture Canada data.

Appendix Table 4

Spinach: Monthly Distribution of Fresh Market Consumption,
1961-1974

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent -	- per cent -	- thousand pounds -	- thousand pounds -	- thousand pounds -	- per cent -
Jan.	88.9	100.0	27	1,335	1,362	98.0
Feb.	100.0	100.0	20	1,375	1,395	98.6
Mar.	100.0	100.0	19	1,388	1,407	98.6
Apr.	70.8	88.6	46	1,176	1,222	96.2
May	45.3	69.3	537	1,397	1,934	72.2
June	14.5	22.6	702	355	1,057	33.6
July	5.5	8.5	598	205	803	25.5
Aug.	4.5	11.0	824	136	960	14.2
Sept.	6.0	18.7	557	192	749	25.6
Oct.	18.5	33.0	411	418	829	50.5
Nov.	67.5	74.9	111	836	947	88.3
Dec.	92.7	96.2	23	1,096	1,119	97.9
Total	47.3	61.5	3,872	9,908	13,780	71.9

Source: Derived from Statistics Canada data and Agriculture Canada data.

Appendix Table 5

Spinach: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-74</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	940	12.0	1,335	13.5	1,202	1,493	1,338	1,480
Feb.	1,142	14.6	1,375	13.9	1,304	1,281	1,739	1,317
Mar.	1,208	15.4	1,388	14.0	1,463	1,401	1,364	1,405
Apr.	1,116	14.3	1,176	11.9	770	1,334	1,355	1,453
May	971	12.4	1,397	14.1	1,490	1,205	1,628	1,464
June	314	4.0	355	3.6	477	333	340	470
July	104	1.3	205	2.1	57	216	484	292
Aug.	93	1.2	136	1.4	57	159	264	498
Sept.	115	1.4	192	1.9	59	232	315	227
Oct.	265	3.4	418	4.2	282	551	572	255
Nov.	642	8.2	836	8.4	755	1,155	993	584
Dec.	<u>921</u>	<u>11.8</u>	<u>1,096</u>	<u>11.1</u>	<u>1,043</u>	<u>1,017</u>	<u>1,131</u>	<u>1,050</u>
Total	7,832	100.0	9,908	100.0	8,959	10,376	11,522	10,495

Source: Statistics Canada.

Appendix Table 6

Spinach: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United</u> <u>States</u>	<u>Mexico</u>	<u>Trinidad/(a)</u> <u>Tobago</u>	<u>Total</u>
- thousand pounds -				
1966	6,582	-	-	6,582
1967	7,538	24	-	7,562
1968	6,852	774	-	7,626
1969	8,665	-	-	8,665
1970	8,727	-	-	8,727
Average 1966-70	7,673	160	-	7,832
1971	8,774	-	-	8,774
1972	8,959	-	-	8,959
1973	10,373	-	3	10,376
1974	11,508	-	14	11,522
1975	10,488	-	7	10,495
Average 1971-75	10,020	-	5	10,025

(a) Includes imports from the United Kingdom and Jamaica totaling 838 pounds in 1975.

Source: Statistics Canada.

Appendix Table 7

Spinach: Percentage Distribution of Imports to Fresh Market from
United States by State of Origin, by Region, 1972-1974

	<u>California</u>	<u>Texas</u>	<u>Florida</u>	<u>New Jersey</u>	<u>Others</u>	<u>Total</u>
	- per cent -			-		
<u>1972</u>						
Atlantic Region	-	0.8	87.0	1.6	10.6	100.0
Central Region	*	61.5	1.8	18.5	18.2	100.0
Western Region	81.0	7.1	-	-	11.9	100.0
Canada	17.7	47.1	4.9	13.8	16.5	100.0
<u>1973</u>						
Atlantic Region	5.4	0.3	67.0	-	27.3	100.0
Central Region	-	49.0	0.7	22.4	27.8	100.0
Western Region	82.5	7.9	-	-	9.7	100.0
Canada	17.0	38.5	3.5	16.9	24.1	100.0
<u>1974</u>						
Atlantic Region	-	-	74.0	8.3	17.7	100.0
Central Region	0.9	50.4	2.9	15.7	30.2	100.0
Western Region	83.8	8.8	-	-	7.3	100.0
Canada	21.5	38.3	4.7	11.5	24.0	100.0

Source: Agriculture Canada.

Appendix Table 8

Spinach: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -			-		
Atlantic Region	360	472	459	592	440	649
Nfld.	1	*	-	8	-	1
P.E.I.	4	5	5	8	3	5
N.S.	150	141	190	232	163	217
N.B.	206	326	264	344	275	425
Central Region	6,204	6,468	6,548	7,918	8,579	7,266
Que.	1,272	1,693	1,877	2,164	2,168	1,908
Ont.	4,932	4,775	4,671	5,754	6,411	5,359
Western Region	1,268	1,833	1,952	1,866	2,503	2,580
Man.	37	42	100	103	90	165
Sask.	4	10	15	21	46	54
Alta.	51	209	256	310	384	503
B.C.	1,175	1,571	1,581	1,433	1,982	1,858
Canada	7,832	8,774	8,959	10,376	11,522	10,495

Source: Statistics Canada.

Appendix Table 9a

Spinach: Processing Market Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, United States,
by States, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Acreage -				
Arkansas	3,300	4,600	3,440	1,740	3,270
California	8,800	9,600	9,400	9,800	9,400
Florida	1,700	1,000	1,300	1,100	1,275
Oklahoma	3,200	3,200	2,900	1,810	2,778
Other States	<u>8,440</u>	<u>8,360</u>	<u>9,900</u>	<u>10,600</u>	<u>9,325</u>
Total	25,440	26,760	26,940	25,050	26,048
	- Production, '000 lb. -				
Arkansas	21,500	34,800	28,400	16,400	25,275
California	176,300	185,500	174,300	205,000	185,275
Florida	11,900	4,000	12,500	10,300	9,675
Oklahoma	20,100	23,700	21,800	13,500	19,775
Other States	<u>90,300</u>	<u>80,300</u>	<u>103,900</u>	<u>103,400</u>	<u>94,475</u>
Total	320,100	328,300	340,900	348,600	334,475
	- Average Yield, lb. -				
Arkansas	6,515	7,565	8,256	9,425	7,729
California	20,034	19,323	18,543	20,918	19,710
Florida	7,000	4,000	9,615	9,364	7,588
Oklahoma	6,281	7,406	7,517	7,459	7,118
Other States	<u>10,699</u>	<u>9,605</u>	<u>10,495</u>	<u>9,755</u>	<u>10,131</u>
Total	12,583	12,268	12,654	13,916	12,841
	- Farm Value, \$'000 -				
Arkansas	605	997	909	673	796
California	3,367	3,617	3,547	4,900	3,858
Florida	259	112	321	302	249
Oklahoma	553	651	719	458	595
Other States	<u>2,146</u>	<u>1,986</u>	<u>3,011</u>	<u>3,564</u>	<u>2,677</u>
Total	6,930	7,363	8,507	9,897	8,174
	- Farm Value, ¢ per lb. -				
Arkansas	2.8	2.9	3.2	4.1	3.1
California	1.9	1.9	2.0	2.4	2.1
Florida	2.2	2.8	2.6	2.9	2.6
Oklahoma	2.8	2.7	3.3	3.4	3.0
Other States	<u>2.4</u>	<u>2.5</u>	<u>2.9</u>	<u>3.4</u>	<u>2.4</u>
Total	2.2	2.2	2.5	2.8	2.4

Source: United States Department of Agriculture.

Appendix Table 9b

Spinach: Fresh Market Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, United States,
by States, 1971-1974

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Acreage -				
California	1,520	1,650	1,700	1,900	1,693
Maryland and Virginia	1,400	1,130	1,400	1,350	1,320
Texas	6,200	5,100	5,600	4,500	5,350
Other States	<u>1,860</u>	<u>1,900</u>	<u>1,980</u>	<u>1,910</u>	<u>1,912</u>
Total	10,980	9,780	10,680	9,660	10,275
	- Production, '000 lb. -				
California	21,100	24,700	26,100	27,700	24,900
Maryland and Virginia	5,800	3,700	5,200	4,300	4,750
Texas	22,000	17,300	18,400	17,000	18,675
Other States	<u>12,500</u>	<u>12,800</u>	<u>13,100</u>	<u>11,700</u>	<u>12,525</u>
Total	61,400	58,500	62,800	60,700	60,850
	- Average Yield, lb. -				
California	13,882	14,970	15,353	14,579	14,708
Maryland and Virginia	4,143	3,274	3,714	3,185	3,598
Texas	3,548	3,392	3,286	3,778	3,491
Other States	<u>6,720</u>	<u>6,737</u>	<u>6,616</u>	<u>6,126</u>	<u>6,547</u>
Total	5,592	5,982	5,880	6,284	5,922
	- Farm Value, \$'000 -				
California	3,370	4,021	3,602	3,488	3,620
Maryland and Virginia	649	413	684	703	612
Texas	2,738	2,278	2,577	2,844	2,609
Other States	<u>1,584</u>	<u>1,935</u>	<u>2,209</u>	<u>2,141</u>	<u>1,967</u>
Total	8,341	8,647	9,072	9,176	8,809
	- Farm Value, ¢ per lb. -				
California	16.0	16.3	13.8	12.6	14.5
Maryland and Virginia	11.2	11.2	13.2	16.3	12.9
Texas	12.4	13.2	14.0	16.7	14.0
Other States	<u>12.7</u>	<u>15.1</u>	<u>16.9</u>	<u>18.3</u>	<u>15.7</u>
Total	13.6	14.8	14.4	15.1	14.5

Source: United States Department of Agriculture.

SWEET POTATOES AND YAMS

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SWEET POTATOES AND YAMS

Although intended to apply to two different plants or groups of plants, the terms "yam" and "sweet potato" are, to some extent, used interchangeably and, for classification purposes, the two vegetables, in fresh form, are treated together in the Canadian Customs Tariff. Although botanically distinct, the edible tubers or roots resemble each other. The sweet potato (Impomoe batatus) is a native of tropical America now widely grown in tropical and warmer-temperature climates. The name "yam" is applied to a number of species of the genus Dioscorea, native to the warmer regions of both hemispheres; any of these species would be classified as "yams" on importation into Canada. D. villosa, the wild yam root or colic root, native to the eastern United States and also found in Ontario, is, however, of no economic value. D. Bulbifera, the air potato yam, is one of the few true yams cultivated for food in the United States. Other species, D. sativa, D. alata and D. esculenta are cultivated in tropical and subtropical countries. The Chinese yam or cinnamon vine, D. batata, used as a foodstuff in tropical countries, is grown as an ornamental plant in the United States and Britain.

Sweet potatoes and yams thrive best in a warm climate as the plant is easily injured by frost. Optimum growing conditions are in areas with 175 or more frost-free days, warm nights and considerable sunshine.

Sweet potatoes are marketed "cured" or "uncured." Uncured, they are washed, graded and packed as soon as they are harvested. In the case of curing, which must be done if the product is to be stored, the sweet potatoes are washed, placed in bulk containers and cured at 29.5°C for 10 days. The uncured sweet potatoes, or sweet potatoes in "their natural state" are classified under tariff item 8310-1, the item of concern here. Cured sweet potatoes are classified under tariff item 8315-1 "Sweet potatoes, n.o.p.," and are considered in Volume III of the report respecting Reference No. 152, dealing with processed fruits and vegetables.

PRODUCTION AND CONSUMPTION

There is at present no commercial production of sweet potatoes or yams in Canada, although some sweet potatoes were grown for both the fresh market and processing in south-western Ontario in the mid 1950s and early 1960s. However, this industry disappeared because, apparently, of poor cultural practices and marketing procedures, and a readily available supply of imports. Thus, Canadian consumption is exclusively met by imports.

Approximately 90 per cent of Canadian imports of sweet potatoes originate in the United States where the principal growing areas are in the states of North Carolina and Louisiana. Total yearly imports during the period 1971-74 averaged 11.7 million pounds, up 39 per cent from the average of 8.4 million pounds during 1966-70 (see Appendix Table 1). In 1974, imports totalled 12.8 million pounds, for a total value of \$1,829,827 or 14.2 cents per pound.

TARIFF CONSIDERATIONS

Sweet potatoes and yams are classified under tariff item 8310-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Sweet potatoes and yams, in their natural state			
..... per one hundred pounds	Free	Free	15 cts.

The present tariff item has remained unchanged since 1950 and is bound under GATT. However, under the Most-Favoured-Nation Tariff, sweet potatoes have been free of duty since 1936 and yams, since 1939.

CONCLUSIONS

No party appearing before the Board proposed that tariff item 8310-1 be changed either as to nomenclature or rates of duty. The Board feels that, in the absence of local production or of its development, an increase in the rate of duty would only raise the cost of these vegetables to the Canadian consumer.

RECOMMENDATIONS

The Board recommends that present tariff item 8310-1 be deleted from Schedule "A" of the Customs Tariff and that the following tariff item be inserted under the general preamble applicable to fresh vegetables, with no changes as to rates of duty:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Sweet potatoes and yams			
..... per one hundred pounds	Free	Free	15 cts.

Sweet Potatoes: Imports of Sweet Potatoes and Yams by Country
of Origin, 1966-1975

	<u>United States</u>	<u>Jamaica</u>	<u>Hong Kong</u>	<u>Puerto Rico</u>	<u>Others</u>	<u>Total</u>
	- thousand pounds -					
1966	8,787	22	17	-	-	8,826
1967	7,850	85	28	-	-	7,963
1968	7,932	172	18	45	17	8,184
1969	7,385	380	30	41	2	7,838
1970	8,724	600	29	55	6	9,414
Average 1966-70	8,136	252	24	28	5	8,445
1971	9,423	798	25	21	13	10,280
1972	10,919	1,132	62	3	27	12,143
1973	10,065	1,441	42	5	91	11,644
1974	10,958	1,665	50	5	153	12,830
1975	12,470	1,971	57	3	338	14,840
Average 1971-75	10,767	1,401	47	7	124	12,347

Source: Statistics Canada.

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TOMATOES

The tomato plant (Lycopersicon esculentum) belongs to the nightshade family (Solanaceae), along with the potato, tobacco, petunia, pepper, eggplant, nightshade and many other plants. In its subtropical areas of origin, the tomato is an herbaceous perennial. In temperate climates such as those of Canada and the United States, however, the tomato is grown as an annual, since the plant is killed by frost before completing its first year's growth. The tomato is botanically a fruit, more specifically a berry, although by cultivation and use it is treated as a vegetable, and was so classified - for purposes of trade - by a decision of the United States Supreme Court in 1893. In the Canadian Customs Tariff, the provision for fresh tomatoes has been incorporated under the general heading for fresh vegetables since 1930 and prior to that date the provision for canned tomatoes was in an item which began with the words "Tomatoes and other vegetables. ..."

Two other food plants have names incorporating the word "tomato": the currant tomato (Lycopersicon pimpinellifolium) and the husk tomato (Physalis pruinosa). The Board has no information as to the cultivation or use of either of these plants in Canada; in any case, it is understood that, if imported in the fresh state, they would be classified under tariff item 9600-1 as fruits, n.o.p. In contrast, all varieties of tomatoes of the species L. esculentum, including the so-called cherry tomatoes, are classified as fresh tomatoes of tariff item 8724-1.

The tomato is believed to have originated in the Peru-Bolivia-Ecuador area of the Andes mountains. The earliest recorded mention of the tomato in Europe was in 1554. Spanish explorers in the Americas found the tomato being used as a food, but it was not until much later that it came to be commonly consumed in Europe and North America. Indeed, it is only during the past century or so that selection and breeding work adapting it to temperate climates has been in progress. The results, in terms of new varieties and better methods of production, have been so effective that yields and qualities of tomatoes have improved rapidly.

Fresh tomatoes are an ideal salad vegetable either alone or in combination with other vegetables. They are frequently used in sandwiches, hamburgers and soups and are the base for many sauces and dressings. Tomatoes are served cooked in many forms. The greater proportion of tomatoes produced in temperate climates is processed commercially into many forms, including whole, pureed, solid pack, juice, paste, catsup (ketchup), pickles, chowder, chili sauce, soup and tomato powder. With all these uses, together with their high yields and many varieties, tomatoes hold second place in Canada after potatoes among all vegetable crops, having a farm value of \$44.5 million in 1974. Furthermore, large volumes are grown non-commercially in vegetable gardens, from which they can be served ripe from the vine - something which is almost impossible with commercially produced tomatoes due to their extreme tenderness and perishability when ripe.

Nutritionally, the tomato has a high content of Vitamin A, (900 international units), and Vitamin C, (23 milligrams and up), per 100 grams of edible fruit, but contains relatively few, only 24, calories. The Vitamin C content of the tomato is, however, rapidly dissipated in processing.

Per capita consumption of fresh and processed tomatoes in Canada has increased from an annual average of 60.9 pounds in 1961-1965 to 66.4 pounds in 1971-74. This growth in consumption is entirely due to more processing as disappearance in the fresh form dropped slightly during this period.

GROWING, HARVESTING AND MARKETING

Fresh Market Field Tomatoes - Growing

Methods of growing, harvesting and marketing of fresh market field tomatoes differ considerably between growers, because of the many variable factors that must be taken into account, and the alternative ways of carrying out the several steps involved. Climatic and economic factors are of particular importance in determining the choice of method for growing tomatoes.

One method of production, from which other methods differ by varying degrees, is that used in the growing of early field tomatoes for the fresh market in south-western Ontario. In this type of enterprise, there are five main stages in growing and harvesting, in addition to such general measures as ground preparation, cultivation, fertilization and irrigation. These are as follows:

- (i) Sowing the seed in trays in the greenhouse, about March 8;
- (ii) First transplanting in the greenhouse, about March 29;
- (iii) Second transplanting in the greenhouse or in outside sash-beds or cold frames, about April 20;
- (iv) Transplanting in the field, about May 15; and
- (v) Harvesting, from about July 1 to August 11.

Methods used in planting, however, vary from (a) the one described above, through (b) purchasing of locally grown or imported seedlings for immediate transplanting to (c) direct seeding in the field, either by hand or by simple machines, followed by thinning, or by precision machine seeding into carefully prepared open fields.

Greenhouse Tomatoes - Growing

Production of greenhouse tomatoes, as of all greenhouse plants, requires heavy initial capital investment, large operating expenditures for fuel and other supplies, and many man-hours. In addition, the operator must have substantial skill and experience for satisfactory control of temperature, humidity, ventilation, carbon dioxide, soil fertility and irrigation, soil sterilization and other

disease prevention, pollination, pruning, training on suspended twine, and other requirements for successful plant growth and fruit set.

Greenhouse tomatoes are usually grown in the spring and in the fall. Occasionally, in cooler regions where there is not a long period of very low prices during the peak field production season, one longer-season crop may be grown right through from late spring to early fall. This latter adaptation is mentioned here as one alternative whereby greenhouse producers might, under certain circumstances, reduce their energy requirements and remain more viable. Other adaptations include planting a later spring crop that is easier and less expensive to grow; and the use of lighter, cheaper and more energy-conserving double layer plastic (instead of single layer glass) structures. Research is also being conducted into higher yielding, faster maturing and better quality varieties. For example, Ontario producers recently increased their output of pink tomatoes, which fetch a higher premium and compete more effectively with imported greenhouse tomatoes especially in the Montreal market. Disregarding minor production of other vegetables, tomatoes and cucumbers are the principal greenhouse vegetable crops, with cucumbers being produced primarily in the spring.

Most greenhouse operators grow their own plants from seed. Proper feeding with nitrogen is most critical. For the growing crop, a temperature range of 21^o-24^oC during the day and 16^o-18^oC at night is considered optimum. Although tomato plants will survive a greater temperature range than 16^o-24^oC, maximum yields will be obtained if this range is carefully observed.

Fresh Market Tomatoes - Harvesting and Marketing

Tomatoes themselves are very perishable and easily bruised or damaged by handling, particularly as they approach maturity. Therefore great care is required in the timing of picking and handling of fresh market tomatoes. Such harvesting, all by hand, is done at the "mature green," "turning," "pink," or "firm ripe" stages, depending on the distance and time before final consumer sale can take place. The more completely a tomato can ripen on the vine, the better tends to be its initial quality for fresh consumption, but the greater its tenderness, and the shorter the period before spoilage. More distant supplies, e.g., from Mexico or the southern United States, are therefore usually picked at an earlier stage of maturity, thus giving some degree of quality advantage (in addition to freight and duty protection and savings on costs of ripening) to local supplies, if the latter are well handled during harvesting and marketing and are sold soon after picking.

The harvested tomatoes are normally placed in baskets or hampers which are hauled to the farmyard preparatory to marketing. From there, they may either be delivered to shippers for grading and packing, or they may be graded and packed in farm packing sheds. If shippers carry out the grading and packing function, they charge a custom grading and packing fee, as well as a charge for the containers. They also charge a handling or commission fee for marketing the produce.

Most fresh tomatoes are shipped by truck. Proper loading and temperature control are important factors in bringing tomatoes to market in the best possible condition. To bring the tomatoes to a transit temperature of between 13° and 18°C, both field heat and latent, or metabolic, heat need to be removed.

If good quality, mature, unchilled tomatoes are received by the wholesale or retail warehouse, ripening is a simple procedure. The tomatoes need only be kept in a sanitary room at temperatures around 18°C, at a relative humidity of around 88 per cent, with suitable ventilation, to ripen satisfactorily. Certain other procedures, such as the use of light and ethylene gas, may also be used to hasten ripening. However, locally grown tomatoes may be harvested at a ripe enough stage to be suitable for immediate retail display, without additional artificial ripening costs.

One further step in marketing may be the packaging of tomatoes in consumer-sized packages. The costs of such packaging should also be considered in comparing local and import costs, since many fresh market tomato imports are believed to enter in pre-packaged form.

As with fresh market field tomatoes, great care is required in the timing and handling of greenhouse tomatoes when harvesting. These tomatoes are usually harvested at such a stage as to be pink at retail, though some growers produce tomatoes that are red at retail. All harvesting is by hand, but the picking period is longer than in the case of most fresh market field tomatoes. Most greenhouse tomatoes are sold in the province of production, but a significant number are traded interprovincially (especially from Ontario into Quebec), and some are exported.

Processing Tomatoes

The growing, harvesting and marketing of field tomatoes for processing differ in several respects from the growing, harvesting and marketing of field tomatoes for fresh market use.

Production of processing tomatoes is geared to maximum yields, plus high average grades, at minimum costs. Since labour is the principal cost in growing and harvesting tomatoes, activities which are costly in terms of labour requirements tend to be mechanized as far as possible. And since the average gross farm return per pound is relatively low, marketing costs are kept low by producing close to processing plants, and shipping in bulk to those plants.

For example, instead of transplanting seedlings by hand into relatively light soils to obtain early yields, growers of processing tomatoes tend to use machines to precision plant seeds directly into carefully prepared fields, pre-treating the soil with pesticides and fertilizer, and planting for a higher density of plants per acre, in order to achieve maximum yields later in the season with minimum pre-harvest labour costs. In addition, the tomato plants may be sprayed to promote uniform ripening in preparation for once-over machine harvesting, now becoming an economic necessity for processing tomato production. Machine harvesting, in turn, requires varieties of tomatoes with tougher skins than those used for fresh market production.

There are a number of characteristics of tomato production which are noteworthy. In order to achieve low cost of production per pound relative to foreign producers, especially those in the United States, high average yields per acre are required. High yields are dependent on adequate heat units, which have tended to concentrate processing tomato production in Canada in the warmest climatic region of south-western Ontario. Moreover, since contracts for processing tomatoes are frequently limited to a specified tonnage per acre, there is an incentive for growers of processing tomatoes not using mechanical harvesters, who have produced "surplus" to the contract, to sell selected "processing" tomatoes on the fresh market. Such sales tend to increase peak-season surpluses.

ACREAGE, PRODUCTION AND FARM VALUE

The total acreage of field tomatoes in Canada declined from an average of 33,217 acres during 1961-65 to an average of 27,632 acres in 1971-74. This represented a decline of about 5,585 acres, or 16.8 per cent, during the period under review. The total acreage under glass or plastic in the greenhouse vegetable industry in 1973 was, according to industry sources, approximately 500 acres. Most of this acreage would have been used to grow one or two crops of greenhouse tomatoes. Acreage used to grow tomatoes in home gardens and in some smaller mixed market gardens was not recorded; such production of tomatoes is significant in many areas.

While the total recorded acreage of tomatoes declined, the combined production of field and greenhouse tomatoes increased slightly from an average of 818.7 million pounds during the period 1961-65 to an average of 825.3 million pounds during 1971-74. Field production diminished slightly, while greenhouse production almost doubled. The latter, however, at 29.0 million pounds per annum in 1971-74, accounted for only 3.5 per cent of total tomato output.

The bulk of Canadian production of field tomatoes takes place in Ontario, and comparing 1971-74 with 1961-65 it was the only province where output increased. In fact the output of field tomatoes in the other principal growing regions dropped substantially over this period.

An important factor contributing to the growth in field tomato production in Ontario, in contrast to the situation in all other regions, was the relatively high and increasing average yield per acre, amounting to 32,878 pounds per acre in 1971-74, about three times as high as the average yield in all other provinces. With acreage down and total production steady for the country as a whole, the average yield per acre of field tomatoes rose substantially, from 24,194 pounds in 1961-65 to 28,817 pounds in 1971-74, representing an increase of 19.1 per cent.

Table 1a: Tomatoes: Field, Fresh and Processing, Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Maritimes (a)	356	408	230	230	240	220	230	- 35.4
Quebec	4,984 (b)	3,636 (b)	4,100	3,810	4,030	3,670	3,903	- 21.7
Ontario	27,010	25,176	23,000	22,560	23,260	23,900	23,180	- 14.2
Manitoba	132	128	80	70	70	60	70	- 47.0
B.C.	734	568	320	262	228	185	249	- 66.1
Canada (c)	33,217	29,916	27,730	26,932	27,828	28,035	27,655	- 16.3
- Production, '000 lb. -								
Maritimes (a)	4,030	6,421 (b)	2,988	3,866	3,134	2,885	3,218	- 20.1
Quebec	41,366 (b)	31,911 (b)	34,742	14,342	26,870	22,189	24,536	- 40.7
Ontario	741,526	688,534	787,338	701,288	833,642	726,187	762,114	+ 2.8
Manitoba	2,707	1,890	880	742	840	520	746	- 72.4
B.C.	14,007	10,362	4,725	5,978	6,254	5,654	5,653	- 59.6
Canada (c)	803,636	739,117	830,673	726,216	870,740	757,435	796,266	- 0.9
- Average Yield, lb. -								
Maritimes (a)	11,320	15,738 (b)	12,991	16,809	13,058	13,114	13,991	+ 23.6
Quebec	8,300 (b)	8,776 (b)	8,474	3,764	6,667	6,046	6,286	- 24.3
Ontario	27,454	27,349	34,232	31,085	35,840	30,384	32,878	+ 19.8
Manitoba	20,508	14,766	11,000	10,600	12,000	8,667	10,657	- 48.0
B.C.	19,083	18,243	14,756	22,817	27,430	30,562	22,703	+ 19.0
Canada (c)	24,194	24,706	29,956	26,965	31,234	27,017	28,817	+ 19.1
- Farm Value, \$'000 -								
Maritimes (a)	307 (a)	403	234	481	460	381	389	+ 26.7
Quebec	1,255 (b)	1,456 (b)	1,725	1,141	1,853	1,841	1,640	+ 30.7
Ontario	16,602	18,844	20,761	19,572	24,663	29,663	23,665	+ 42.5
Manitoba	173	161	88	118	134	88	107	- 38.2
B.C.	585	599	492	449	383	520	461	- 21.2
Canada (c)	18,923	21,463	23,299	21,761	27,493	32,493	26,262	+ 38.8
- Farm Value, ¢ per lb. -								
Maritimes (a)	7.6	6.3 (b)	7.8	12.4	14.7	13.2	12.1	+ 59.2
Quebec	3.0 (b)	4.6 (b)	5.0	8.0	6.9	8.3	6.7	+123.3
Ontario	2.2	2.7	2.6	2.8	3.0	4.1	3.1	+ 40.9
Manitoba	6.4	8.5	10.0	15.9	16.0	16.9	14.3	+123.4
B.C.	4.2	5.8	10.4	7.5	6.0	9.2	8.2	+ 95.2
Canada (c)	2.4	2.9	2.8	3.0	3.2	4.3	3.3	+ 37.5

(a) Fresh only.

(b) Includes Maritimes processing.

(c) Fresh only for Maritimes, 1971 and 1974.

Source: Derived from Statistics Canada data.

Table 1b: Tomatoes: Greenhouse Production, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Production, '000 lb. -								
Atlantic	510	952	1,025	1,255	1,611	1,584	1,369	+168.4
Quebec	88	88	54	219	237	505	254	+188.6
Ontario	11,783	18,956	24,434	26,208	24,078	25,178	24,974	+111.9
Prairies	207	281	499	392	302	297	373	+ 80.2
B.C.	2,444	2,614	1,544	1,945	2,391	2,265	2,036	- 16.7
Canada	15,032	22,890	27,556	30,019	28,619	29,828	29,005	+ 93.0
- Farm Value, \$'000 -								
Atlantic	145	296	374	437	637	729	544	+275.2
Quebec	19	17	18	76	96	190	95	+400.0
Ontario	2,566	5,118	7,452	7,971	8,397	10,125	8,486	+230.7
Prairies	53	67	138	107	91	124	115	+117.0
B.C.	564	753	448	639	817	812	679	+ 20.4
Canada	3,347	6,252	8,429	9,230	10,037	11,981	9,919	+196.4
- Farm Value, ¢ per lb. -								
Atlantic	28.4	31.1	36.5	34.8	39.5	46.0	39.7	+ 39.8
Quebec	21.6	19.3	33.3	34.7	40.5	37.6	37.4	+ 73.1
Ontario	21.8	27.0	30.5	30.4	34.9	40.2	34.0	+ 56.0
Prairies	25.6	23.8	27.7	27.3	30.1	41.8	30.8	+ 20.3
B.C.	23.1	28.8	29.0	32.9	34.2	35.8	33.3	+ 44.2
Canada	22.3	27.3	30.6	30.7	35.1	40.2	34.2	+ 53.4

Source: Derived from Statistics Canada data.

Table 1c: Tomatoes: Field and Greenhouse, Production, Farm Value and Farm Value per Pound, by Province, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Production, '000 lb. -								
Maritimes	4,540 ^(a)	7,373 ^(a)	4,013	5,121	4,745	4,469	4,587	+ 1.0
Quebec	41,454 ^(b)	31,999 ^(b)	34,796	14,561	27,107	22,694	24,790	- 40.2
Ontario	753,309	707,490	811,772	727,496	857,720	751,365	787,088	+ 4.5
Prairies	2,914	2,171	1,379	1,134	1,142	817	1,119	- 61.6
B.C.	16,451	12,976	6,269	7,923	8,645	7,919	7,689	- 53.3
Canada	818,668	762,007	858,229	756,235	899,359	787,263	825,271	+ 0.8
- Farm Value, \$'000 -								
Maritimes	452 ^(a)	699 ^(a)	608	918	1,097	1,110	933	+106.4
Quebec	1,274 ^(b)	1,473 ^(b)	1,743	1,217	1,949	2,031	1,735	+ 36.1
Ontario	19,168	23,962	28,213	27,543	33,060	39,788	32,151	+ 67.7
Prairies	226	228	226	225	225	212	222	- 1.8
B.C.	1,149	1,352	940	1,088	1,200	1,332	1,140	- 0.8
Canada	22,270	27,715	31,728	30,991	37,530	44,474	36,181	+ 62.5
- Farm Value, ¢ per lb. -								
Maritimes	10.0 ^(a)	9.5 ^(a)	15.2	17.9	23.1	24.8	20.3	+103.0
Quebec	3.1 ^(b)	4.6 ^(b)	5.0	8.4	7.2	8.9	7.0	+125.8
Ontario	2.5	3.4	3.5	3.8	3.9	5.3	4.1	+ 64.0
Prairies	7.8	10.5	16.4	19.8	19.7	25.9	19.8	+153.8
B.C.	7.0	10.4	15.0	13.7	13.9	16.8	14.8	+111.4
Canada	2.7	3.6	3.7	4.1	4.2	5.6	4.4	+ 63.0

(a) Fresh only.

(b) Includes Maritimes processing.

Source: Derived from Statistics Canada data.

Total farm value of all recorded commercially produced tomatoes rose from an average of \$22.3 million during 1961-65 to an average \$36.2 million during 1971-74, an increase of \$13.9 million or 62.5 per cent. Average farm value per pound rose from 2.7 to 4.4 cents during the same period, an increase of 63.0 per cent. In 1974, total farm value amounted to \$44.5 million, and average farm value per pound rose to 5.6 cents. In this connection, the exceptionally wide differences in farm values per pound, as between field tomatoes and greenhouse tomatoes, should be noted. In 1971-74, the former commanded an average farm value of 3.3 cents per pound as against 34.2 cents for greenhouse-produced tomatoes. Even allowing for differences in marketing seasons and outlets, these differences remain startling. Thus, in spite of the relative insignificance of greenhouse-produced tomatoes in terms of the volume of physical production, from the standpoint of value they accounted for 27.4 per cent of total farm receipts attributable to this crop in 1971-74 and 57.2 per cent of the farm receipts attributable to fresh market tomatoes.

Throughout the period 1961-65 to 1971-74, the acreage and production, both of field and greenhouse tomatoes, became increasingly concentrated in Ontario. In 1971-74, that province accounted for about 96 per cent of Canadian field tomato production and 86 per cent of Canadian greenhouse tomato production. The corresponding figures for 1961-65 were 92 per cent and 78 per cent, respectively.

Fresh Market Field Tomatoes

Recorded commercial production of fresh market field tomatoes (Appendix Table 2a) in Canada fell sharply from 129.1 million pounds on average during 1961-65 to an average of 72.4 million pounds during 1971-74, a decline of 57.0 million pounds or 43.9 per cent. Total farm value of fresh market field tomatoes, however, rose from an average of \$6.2 million during 1961-65 to an average of \$7.4 million during 1971-74. Average farm values or farm-gate prices of fresh market field tomatoes rose from an average of 4.8 cents per pound during 1961-65 to an average of 10.3 cents per pound during 1971-74.

Acreage figures are not available for all provinces. However, the Ontario acreage declined from an average of 6,566 in 1961-65 to 2,688 in 1971-74. Although the average yield increased slightly, production declined from an average of 92.9 million pounds, equivalent to 72.0 per cent of the national total, to 45.9 million pounds, or 63.4 per cent. Quebec acreage remained relatively stable although yields declined somewhat, and its share of total production rose from 17.3 per cent to 26.2 per cent.

Field Processing Tomatoes

Total production of processing tomatoes in Canada rose from 674.6 million pounds, on average, during 1961-65 to 723.9 million pounds on average during 1971-74, an increase of 49.3 million pounds or 7.3 per cent (see Appendix Table 2b). All of the increase in production took place within Ontario, where output rose from an average of 648.6 million pounds during 1961-65 to an average of 716.2 million pounds during 1971-74, accounting for 98.9 per cent of the Canadian total.

Average yields per acre of processing tomatoes in Ontario increased from an average of 31,728 pounds per acre during 1961-65 to an average of 34,914 pounds per acre during 1971-74. The corresponding figure for Quebec for the latter period was 6,684 pounds. Comparable figures are not available for other areas.

The total farm value of processing tomatoes rose from an average of \$12.7 million during 1961-65 to an average of \$18.8 million during 1971-74. This was again due entirely to a higher farm value in Ontario, which accounted for 99.1 per cent of total Canadian farm value in 1971-74. Average farm values, or prices per pound received by farmers for processing tomatoes delivered to the processing companies are low relative to fresh market tomatoes and increased slowly from an average of 1.9 cents per pound during 1961-65 to an average of 2.6 cents per pound in 1971-74, an increase of 0.7 cents per pound or 36.8 per cent. It is probable that only the rapidly increasing productivity, primarily of Ontario producers, whose numbers fell by about two-thirds between 1951 and 1971, made possible the maintenance of production at such relatively low and stable prices. At such low prices per pound, mechanized harvesting is becoming a necessity, and is gradually being introduced.

Greenhouse Tomatoes

The production of greenhouse tomatoes in Canada was relatively small in volume, compared with production of field tomatoes, both fresh and processing, during the period 1961-65 to 1974. Total production of greenhouse tomatoes increased rapidly from 1961-65 to a peak in 1972, declined somewhat in 1973, and increased in 1974. Total production during 1961-65 averaged 15.0 million pounds and rose to an average of 29.0 million pounds during 1971-74, an increase of 14.0 million pounds or 93.0 per cent. The peak output was 30.0 million pounds in 1972.

Precise statistics on the acreage in greenhouses devoted to tomato growing in each year of the period under review were not available to the Board. Industry sources, however, supplied the following limited information for 1973. Total greenhouse vegetable acreage in Canada, most of which would be used to grow at least one crop of tomatoes, was estimated at about 500 acres in 1973. Of this total, Ontario had about 350 acres, or 70 per cent, with 245 acres in the Leamington area, 36, in the Niagara area, 28, in the Toronto-Hamilton area, and 12, in the Holland Marsh area. Figures for the other provinces were: Quebec with 25 acres, Alberta with 22 acres, and British Columbia with 60 acres. By 1974, Quebec sources reported provincial acreage as having risen to 34 acres, and the Manitoba greenhouse industry was reported to comprise between 3 and 4 acres in small units.

As with field production, greenhouse tomato production was concentrated in Ontario, and Ontario's share of total Canadian output increased during the period under review, with the exception of a sharp decline between 1972 and 1973. On average during the period 1961-65, Ontario production amounted to 11.8 million pounds or 78.4 per cent of the Canadian total; by 1971-74, Ontario production had risen to an average of 25.0 million pounds or 86.1 per cent of the Canadian total, having reached a peak of 26.2 million pounds or 87.3 per cent of the Canadian total in 1972.

The total farm value or gross return to farmers from greenhouse tomato production rose for Canada as a whole from \$3.3 million on average during 1961-65 to \$9.9 million in 1971-74, i.e., approximately tripled, as output almost doubled and average farm-gate prices rose by half. Total returns accruing to Ontario greenhouse tomato producers jumped from \$2.6 million on average during 1961-65 to \$8.5 million in 1971-74.

Farm-gate prices or average gross farm returns per pound for greenhouse tomatoes increased from an average of 22.3 cents per pound during 1961-65 to 34.2 cents per pound in 1971-74, an increase of 53.4 per cent over the whole of Canada. Grower prices increased at relatively similar rates throughout Canada.

SUPPLY AND DISPOSITION

Data respecting the supply and disposition of fresh tomatoes are set forth in Table 2. Supply and disposition ratios are presented in Appendix Table 3. Figures are included for imports of tomatoes in processed forms as these displace Canadian-grown processing tomatoes. Imports and exports of processed tomatoes are understated in that no data are available for the tomato content of such products as tomato and other soups, relishes, canned pasta products and sauces for such products, mixed vegetable juices, frozen pizzas, and pizza

From the period 1961-65 to 1971-74, the average annual consumption in Canada of fresh and processed tomatoes increased by 26.5 per cent, from 1.15 to 1.46 billion pounds. A high and increasing percentage of this consumption, 73.3 per cent in 1961-65 and 78.1 per cent in 1971-74, was in processed form. Fresh consumption increased only slightly by 3.7 per cent, while consumption in processed form increased by 34.8 per cent. On a per capita basis, total consumption increased from 60.9 to 66.4 pounds, but consumption of fresh tomatoes dropped from 16.3 to 14.6 pounds with the balance, 44.6 and 51.8 pounds respectively, being consumed in processed form. The peak year for consumption was 1973 with per capita consumption of 73.0 pounds, 15.6 in the fresh and 57.4 pounds in the processed form.

During the period under review, the total supply of tomatoes available for consumption in Canada increased by 24.9 per cent. Domestic production of fresh tomatoes was virtually unchanged, but the proportion sold for processing rose by 7.3 per cent, from 647.6 million pounds, or 82.4 per cent of the total, in 1961-65 to 723.8 million pounds, 87.7 per cent of the total, in 1971-74. A doubling of the supply of greenhouse tomatoes failed to offset a decline of 43.9 per cent in the supply of field tomatoes for the fresh market, so that total production for fresh use fell from 144.1 to 101.4 million pounds.

As total domestic production during the period under review rose by only 6.6 million pounds, virtually the entire increase in supply came from imports. By 1971-74, imports accounted for 43.7 per cent of domestic consumption as against 30.6 per cent in 1961-65. During this period total imports rose by 80.8 per cent, with fresh

Table 2: Tomatoes: Supply and Disposition, Canada, 1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb. -				
<u>Total Production</u>								
<u>Total for fresh use</u>								
Greenhouse	818,668	762,007	858,229	756,235	899,359	787,263	825,271	+ 0.8
Field	144,084	122,008	111,757	96,491	104,587	92,825	101,415	- 29.6
Total for processing	15,032	22,890	27,556	30,019	28,619	29,828	29,005	+ 93.0
	129,052	99,118	84,201	66,472	75,968	62,997	72,410	- 43.9
	674,584	639,999	746,472	659,744	794,772	694,438	723,857	+ 7.3
<u>Total Imports</u>								
<u>Fresh</u>	353,042	509,079	512,560	568,224	717,757	752,914	638,363	+ 80.8
<u>Processed (a)</u>	166,299	200,394	192,291	219,235	242,143	228,439	220,527	+ 32.6
	186,743	308,685	320,269	348,989	475,614	524,475	417,836	+123.7
Total Supply Available	1,171,710	1,271,086	1,370,789	1,324,459	1,617,116	1,540,177	1,463,634	+ 24.9
Available for processing or imported processed								
From domestic production	861,327	948,684	1,066,741	1,008,733	1,270,386	1,218,913	1,141,693	+ 32.6
Imported processed	674,584	639,999	746,472	659,744	794,772	694,438	723,857	+ 7.3
	186,743	308,685	320,269	348,989	574,614	524,475	417,836	+123.7
Available for fresh market								
From domestic production	310,383	322,402	304,048	315,726	346,730	321,264	321,942	+ 3.7
Imported	144,084	122,008	111,757	96,491	104,587	92,825	101,415	- 29.6
	166,299	200,394	192,291	219,235	242,143	228,439	220,527	+ 32.6

Table 2: Tomatoes: Supply and Disposition, Canada, 1961-1974 (concl.)

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
				- '000 lb. -				
Total Exports (b)								
Fresh	17,672	13,946	3,107	4,556	4,706	4,466	4,209	- 76.2
Processed (a)	1,790	2,177	2,306	2,869	1,780	1,264	2,055	+ 14.8
	15,882	11,769	801	1,687	2,926	3,202	2,154	- 86.4
Total Domestic Disappearance	1,154,038	1,257,140	1,367,682	1,319,903	1,612,410	1,535,711	1,459,425	+ 26.5
Consumed in processed form	845,445	936,915	1,065,940	1,007,046	1,267,460	1,215,711	1,139,539	+ 34.8
From domestic production	658,702	628,230	745,671	658,057	791,846	691,236	721,703	+ 9.6
Imported processed	186,743	308,685	320,269	348,989	475,614	524,475	417,836	+123.7
Fresh market consumption	308,593	320,225	301,742	312,857	344,950	320,000	319,887	+ 3.7
From domestic production	142,295	119,831	109,451	93,622	102,807	91,561	99,360	- 30.2
Imported	166,299	200,394	192,291	291,235	242,143	228,439	220,527	+ 32.6

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(a) Converted to fresh equivalent.
(b) Includes re-exports.

Source: Derived from Statistics Canada and Agriculture Canada data.

imports increasing by 32.6 per cent, from 166.3 to 220.5 million pounds, and imports of processed tomatoes by 123.7 per cent, from 186.7 to 417.8 million pounds. The total supply available for the fresh market rose by only 3.7 per cent, while the supply of processed tomatoes rose by 32.6 per cent.

Total supply increased by a slightly lesser percentage than total consumption. This is explained by a drop in exports, from 17.7 to 4.2 million pounds. Fresh exports remained relatively stable, but exports of processed tomatoes dropped by 86.4 per cent, from 15.9 to 2.2 million pounds.

To date, Canadian processors have acquired substantially all their tomatoes from domestic sources of supply, of which Ontario accounted for 98.9 per cent in the period 1971-74. (The Board is aware that some imported fresh tomatoes are processed in Canada, but no data are available and in any case, it is believed that the quantities involved are small. However, to the extent that such processing takes place, imports for the fresh market are overstated throughout this discussion.) Total consumption of tomatoes in processed form increased by 34.8 per cent, from 845.4 million pounds in 1961-65 to 1,139.5 million in 1971-74. Most of the increase was supplied by imports of the processed product, which rose by 123.7 per cent. The share supplied by processed Canadian-grown tomatoes fell from 77.9 per cent of the total to 63.3 per cent, although the amount increased, by 9.6 per cent, in absolute terms.

Fresh market consumptions of tomatoes averaged 320 million pounds per annum during 1971-74 compared with 309 million during 1961-65. As mentioned earlier, fresh market production in Canada has declined sharply, and hence imports for the fresh market have increased greatly. Such imports rose from an average of 166 million pounds per year during 1961-65 to 221 million pounds in 1971-74. Fresh market imports as a percentage of fresh market consumption increased from 53.9 per cent to 68.9 per cent.

From a seasonal point of view, fresh market requirements during the first quarter of the calendar year are met virtually entirely from imports. Domestic and imported greenhouse tomatoes begin to appear about the end of March and supplement imported field tomatoes during the second quarter. Canadian-grown field tomatoes begin to come on the market late in June and continue until October, but supplies are still available, for most of the period, from imports and in certain regions, from domestic greenhouse production. From about mid October until the end of the year, the fresh market is again supplied by imported field tomatoes supplemented by domestic and imported greenhouse produce.

Imports by provinces and regions are given in Appendix Table 7. These figures indicate that most of the increase in imports of fresh market tomatoes between 1966-70 and 1971-74 was accounted for by imports into the western region, which increased its share of the total imports from 31.3 per cent to 34.9 per cent. The small imports into the Atlantic Provinces increased both in volume and as a proportion of the total imports. The central provinces also imported a greater volume, but their imports accounted for a smaller share of the Canadian total.

Imports by months are presented in Appendix Table 8. These data show remarkably little change in the pattern of imports between 1966-70 and 1971-75. Imports during the four months when Canadian supplies are virtually non-existent, January to March and December, accounted for 34.0 per cent of the total in the earlier period and 35.0 per cent in the later period. During the months when the domestic supplies are limited to greenhouse tomatoes, April, May, and November, the share increased from 27.8 per cent of the annual total to 28.9 per cent. During the months, therefore, when Canadian field tomatoes are available, June to October, the proportion of imports dropped from 38.1 per cent to 36 per cent of the total, and, while imports over the years as a whole increased by 11.3 per cent, during these months the increase was only 5.2 per cent. Of course, as these increases accompanied an absolute decline in Canadian fresh market field production and total fresh market production, imports did increase their share of the total market throughout the year. During the months when Canadian field tomatoes are most abundant (July-September), imports increased their share of the total fresh market consumption from 22.1 per cent in 1961-65 to 33.3 per cent in 1966-70 and 41.5 per cent in 1971-74. During the greenhouse season, (April-June and October-November), the corresponding shares were 69.2, 71.8, and 73.3 per cent.

Further details of regional and seasonal variations in the supply of fresh tomatoes, illustrated in Table 3, can be derived from unloads data published by Agriculture Canada for 12 principal markets for the three years 1972-1974. Unloads on these markets accounted for about 70 per cent of total Canadian fresh market consumption in this period. The seasonal pattern of consumption varies little from region to region. In Canada as a whole, 23.7 per cent are consumed in the first quarter, 28.3 per cent in the second, 27.7 per cent in the third and 20.3 per cent in the last quarter.

There is little interregional movement of domestic tomatoes, although greenhouse and field tomatoes from the central region do enter the Atlantic Provinces, and to a minor extent, the Winnipeg market.

IMPORTS

As noted, tomatoes for the fresh market are imported into Canada throughout the year. The major sources of supply of field tomatoes are the United States and Mexico, although small quantities come from a number of other countries (Appendix Table 6). California, which produced 72.6 per cent of the tomatoes grown in the United States in 1971-74 (Appendix Table 15a), and Florida are the major sources in the United States. The principal source of imported greenhouse tomatoes is the State of Ohio.

Total imports from the United States rose from an annual average of 114.3 million pounds in the period 1966-1970 to 148.8 million pounds in 1971-1974; imports from Mexico declined from 84.7 to 70.5 million pounds over the same period.

Table 3: Tomatoes: Regional Sources of Supply by Quarters,
Annual Averages, 1972-1974

	<u>First</u> <u>Quarter</u>	<u>Second</u> <u>Quarter</u>	<u>Third</u> <u>Quarter</u>	<u>Fourth</u> <u>Quarter</u>	<u>Total</u> <u>Supply</u>
- percentage of total supply -					
<u>Atlantic Region</u>					
Total Domestic					
Production	-	10.9	51.3	19.4	22.3
Regional	-	8.5	36.4	16.4	16.6
Central Canada	-	2.4	14.9	3.0	5.7
Total Imports	100.0	89.1	48.7	80.6	77.7
Total Supply	100.0	100.0	100.0	100.0	100.0
Quarterly Consumption as % of Annual Total	22.1	27.6	29.7	20.7	100.0
<u>Central Region</u>					
Total Domestic					
Production	*	18.4	55.9	16.7	24.3
Regional	*	18.4	55.9	16.7	24.3
Total Imports	100.0	81.6	44.1	83.3	75.7
Total Supply	100.0	100.0	100.0	100.0	100.0
Quarterly Consumption as % of Annual Total	23.4	27.9	28.0	20.7	100.0
<u>Western Region</u>					
Total Domestic					
Production	*	7.1	9.4	7.8	6.1
Regional	*	7.0	9.3	5.1	5.5
Central Canada	-	0.1	0.2	2.7	0.6
Total Imports	99.9	92.9	90.6	92.2	93.9
Total Supply	100.0	100.0	100.0	100.0	100.0
Quarterly Consumption as % of Annual Total	24.4	29.3	27.1	19.4	100.0
<u>Canada</u>					
Total Domestic					
Production	*	14.4	41.2	14.0	18.4
In region of use	*	14.3	40.7	13.1	18.0
In other regions	-	0.1	0.5	0.9	0.4
Total Imports	100.0	85.6	58.8	86.0	81.6
Total Supply	100.0	100.0	100.0	100.0	100.0
Quarterly Consumption as % of Annual Total	23.7	28.3	27.7	20.3	100.0

Source: Derived from Agriculture Canada data.

The dependence of the various regions of Canada on imports from the three major sources is illustrated in Tables 4a and 4b.

Table 4a: Tomatoes: Percentage Distribution of Fresh Market Imports, by Region of Origin, 1972-1974

	<u>California</u>	<u>Florida</u>	<u>Mexico</u>
	- per cent -		
Atlantic region	2.4	4.4	1.4
Central region	47.7	79.2	52.7
Western region	<u>49.9</u>	<u>16.4</u>	<u>45.9</u>
Canada	100.0	100.0	100.0

Source: Agriculture Canada.

Table 4b: Tomatoes: Percentage Distribution of Fresh Market Imports, by Region of Destination, 1972-1974

	<u>Atlantic Region</u>	<u>Central Region</u>	<u>Western Region</u>	<u>Canada</u>
	- per cent -			
California	30.2	24.8	42.2	31.4
Florida	48.0	36.0	12.1	27.4
Mexico	20.3	31.3	44.3	35.9
Others	<u>1.5</u>	<u>7.9</u>	<u>1.4</u>	<u>5.3</u>
Total	100.0	100.0	100.0	100.0

Source: Agriculture Canada.

Central Canada, accounting for 79.2 per cent of total Canadian imports from Florida, is the major market for tomatoes from that state. Florida is, moreover, the principal supplier to both central Canada and the Maritimes, with 36.0 and 48.0 per cent respectively of total imports by those regions. It has the smallest share of the western market. The bulk of the Californian and Mexican tomatoes go to central and western Canada, about in equal amounts to each region.

EXPORTS

Export data are presented in Appendix Tables 10, 11, and 12. Exports and re-exports have declined steadily in recent years and in 1974 and 1975 were at a level less than half of that in the period 1966-1970. Almost all exports go to the United States; small quantities are also exported to St. Pierre and Miquelon and to the Caribbean area, and occasionally to other markets. On a monthly basis, the most marked declines have been in the months of May and November. In the

former month, the average was 202,000 pounds in 1966-70, but exports in that month in 1974 amounted to only 50,000 pounds and in 1975 to 4,000 pounds. Exports in November fell from an average of 97,000 pounds in 1966-70 to 11,000 pounds in 1975. These figures would suggest that Canadian greenhouse tomatoes are no longer competitive in the United States. Almost all Canadian exports originate in the central provinces, mostly in Ontario.

PRICES

Farm prices for all types of tomatoes have risen steadily in recent years. The data can be summarized as follows:

	<u>Average</u> <u>1961-65</u>	<u>Average</u> <u>1966-70</u>	<u>Average</u> <u>1971-74</u>	<u>1974</u>
	- ¢ per lb. -			
Field, fresh use	4.8	6.5	10.3	13.2
Field, processing	1.9	2.3	2.6	3.5
Greenhouse	22.3	27.3	34.2	40.2

Source: Table 1b and Appendix Tables 2a and 2b.

The most spectacular increase has been in the case of fresh market field tomatoes. In 1961-65, on average, the return to the farmer was about $2\frac{1}{2}$ times that received for processing tomatoes, but in 1971-74, the return was four times as great. Greenhouse tomatoes for the fresh market command a considerable premium. However, whereas the average return for greenhouse tomatoes in 1961-65 was nearly five times that for field tomatoes, in 1974 it was only slightly more than three times as much.

Wholesale-to-retail prices for fresh market tomatoes, field and greenhouse, are set out in detail in Appendix Tables 13a and 13b and are summarized in so far as field tomatoes are concerned in Table 5. It will be noted that prices in Halifax were considerably higher than in other markets. Prices fluctuated in all markets throughout the year but tended to be at their lowest during the season when domestic field tomatoes were available. Even at that point, however, imported tomatoes sold at slightly higher prices than Canadian produce. Greenhouse tomatoes usually commanded a premium, although, in the Halifax market, Nova Scotia greenhouse tomatoes were sold at the same price as imported or domestic field tomatoes for several weeks at different times of the year. In Montreal, Quebec greenhouse tomatoes were usually more expensive than those from Ontario; prices for imported greenhouse tomatoes, mostly from Ohio, tended to be the highest. The lowest prices for greenhouse tomatoes were generally found in Toronto, with Vancouver and Winnipeg prices tending to be somewhat above those in Montreal but below Halifax levels.

Table 5: Wholesale-to-Retail Selling Prices for Domestic and Imported Field Tomatoes in Halifax,
Montreal, Toronto, Winnipeg, and Vancouver, 1974

Month	Halifax		Montreal		Toronto	Winnipeg		Vancouver	
	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.
Jan.	-	43.5	-	24.6	-	25.3	-	-	30.5
Feb.	-	59.4	-	36.1	-	41.9	-	-	35.4
Mar.	-	49.9	-	26.4	-	24.2	-	-	26.7
Apr.	-	51.4	-	31.2	-	35.7	-	-	39.8
May	-	60.5	-	32.2	-	35.9	-	-	37.3
June	-	60.0	-	30.1	-	32.3	-	-	38.7
July	-	57.5	49.4	26.3	25.4	29.0	-	-	31.3
Aug.	35.0	49.9	19.8	21.7	16.8	23.1	24.0	-	28.6
Sept.	33.8	51.7	10.4	21.3	15.1	23.8	21.5	-	29.7
Oct.	32.5	52.0	-	24.5	-	25.1	19.6	-	29.9
Nov.	-	60.0	-	36.9	-	37.2	-	-	40.6
Dec.	-	51.7	-	24.0	-	24.7	-	-	35.6

- ¢ per lb. -

- (a) 10-lb. ctn.
 (b) 10-12-oz. cello.
 (c) 20-lb. box.
 (d) 6 x 7, 30-lb. ctn.
 (e) 11-qt. flat.
 (f) 25-lb. ctn.

Source: Appendix Tables 13a and 13b.

Appendix Tables 14a and 14b provide a breakdown of the landed cost of imported fresh market tomatoes in Toronto for the years 1972, 1973, and 1974 and for Montreal, Winnipeg, and Vancouver, in 1974. This information is summarized in Table 6. It will be noted that although in two cases the highest amount of duty paid exceeds the lowest amount for freight, brokerage, etc., the latter generally afforded more protection to Canadian growers than the duty.

Table 6: The Landed Cost of Imported Tomatoes in Toronto, Montreal, Winnipeg, and Vancouver, 1972-1974

	<u>Cost f.o.b.</u>	<u>Freight, Brokerage, etc.</u>	<u>Duty</u>	<u>Total Landed Cost</u>
	- range in ¢ per lb. -			
Toronto				
1972	7.8-22.8	2.9-4.9	Free-2.2	11.4-28.3
1973	8.9-25.8	1.8-6.7	Free-1.7	14.9-33.0
1974	11.5-35.8	1.8-6.2	Free-3.5	15.2-43.5
Montreal				
1974	8.8-24.7	2.6-9.5	1.1-2.4	14.9-36.7
Winnipeg				
1974	13.3-24.2	4.0-6.4	Free-2.4	18.3-31.8
Vancouver				
1974	6.3-36.7	2.5-7.1	Free-3.0	13.0-41.3

Source: Appendix Tables 14a and 14b.

CANADA-UNITED STATES-MEXICO COMPARISONS

Tomato production in the United States averaged 14,067 million pounds in the years 1971-1974. Of that total, 1,929 million pounds were for the fresh market and the remainder, some 86 per cent of the total, were for processing. Only about 1 per cent of total production was exported, with 98 per cent going to Canada. Domestic production accounted for 96 per cent of total U.S. consumption for both the fresh market and for processing. The balance was supplied by imports of which 99 per cent or 570 million pounds came from Mexico. Total U.S. production was about 17 times that in Canada; production for the fresh market was 26 times as much. Average farm values in the United States were 2.3 cents for processing tomatoes and 15.5 cents for the fresh market, as compared to Canadian prices of 2.6 cents for processing and 10.3 cents for the fresh market field tomatoes, excluding greenhouse tomatoes.

Table 7: Tomatoes: Field Fresh Market Production Costs in Canada, United States, and Mexico

	Essex County (Fresh Market)	B.C. (Fresh Market)	Florida (Immokalee-Lee) (Staked) (Ground)	Florida (Dade) (Ground)	California (Ground)	Mexico
	1974	1974	1972-73	1972-73	1973	1974-75
Yield, lb./acre	21,700	8,000	25,530	9,330	16,000	20,150
			- \$ per acre -			
Pre-Harvest or Cultivation Costs						
Labour	497.63	434.49	706.83	312.96	132.00	643.44
Machines	60.95				40.50	
Materials	128.95	184.13	587.72	299.35	180.93	
Others	13.83	-	157.06	99.26	67.00	8.03
Total	701.36	618.62	1,451.61	711.57	420.43	651.47
Harvesting and Marketing Costs						
Labour	869.78	320.00	1,415.44	455.78	386.90	
Machines	15.87	109.29	96.69	56.33	37.18	
Materials	407.22	292.00	336.30	116.22	127.12	
Others	261.67		167.44	57.26	50.72	
Total	1,554.54	721.29	2,015.87	685.59	1,439.10	333.44
Overhead Costs						
Land charges	215.43	180.00	34.72	18.12	90.00	97.13
Other	264.16	360.99	420.89	114.54	51.04	192.28
Total	479.59	540.99	455.61	132.66	141.04	289.41
Total Costs	2,735.49	1,880.90	3,923.09	1,529.82	2,000.57	1,274.32
Total Costs (¢/lb.)	12.6	23.5	15.4	16.4	12.5	6.3

Source: Background papers prepared for the Tariff Board by G.A. Fisher and J.D. Forbes.

Approximately comparable costs of production for fresh market tomatoes are given in Table 7. The U.S. figures are for California and Florida, each of which produce about one-third of the total U.S. supply of fresh market tomatoes. The U.S. data are for 1972 and 1973, while the Canadian and Mexican data are more recent.

It is apparent that production costs in Mexico are well below those in the United States and Canada. Furthermore, it would seem that Ontario fresh market costs are comparable with costs in California. However, California costs are for 1973 and would probably be higher in 1974; the data in Appendix Table 15b suggest an average increase of about 5 per cent. At the same time the Essex County costs data are based on a yield of 21,700 pounds per year which is substantially higher than the average Ontario yield in that year, see Appendix Table 2a. Consequently Ontario costs are also higher than the 12.6 cents per pound indicated in Table 7; an average of 14 cents may have been more realistic. Taking these adjustments into consideration, California costs for fresh market tomatoes would appear to be somewhat lower. Florida costs are clearly higher than those in Ontario and California. British Columbia costs are higher than in other growing regions by a wide margin.

Table 8: Tomatoes: Processing Production Costs per Acre and per Pound, Ontario, Ohio and California

	<u>Ontario</u>	<u>Ohio</u>	<u>California</u>
	<u>1974</u>	<u>1974</u>	<u>1973</u>
Yield/Acre (lb.)	36,000	36,000	50,000
	- \$ per acre -		
<u>Pre-Harvest Costs</u>			
Seed preparation	23.28	22.25	29.31
Planting	45.33	32.45	6.18 ^(a)
Summer operations	38.62	54.03	67.24
<u>Materials</u>			
Plants or seed	67.20	81.00	8.25
Fertilizer	62.77	78.50	10.00
Sprays	71.20	85.05	69.09
Other	3.65	6.50	21.33
Misc. pre-harvest costs	-	-	56.80
<u>Total Pre-Harvest Costs</u>	312.05	359.78	268.20
<u>Harvest and Market Costs</u>	579.68	492.84	223.83
<u>Overhead Charges</u>			
Land charges	100.00	108.00	100.00
Investment in buildings and equipment	-	44.98	69.22
Other costs	23.55	45.06	-
Management allowance	-	-	37.50
Total Costs per Acre	1,015.28	1,050.66	698.75
Total Costs per lb. (cts.)	2.82	2.92	1.40

(a) Direct seeding.

Source: Background paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

The Board also attempted to compare production costs for processing tomatoes. Such costs are shown in Table 8 for Ontario, the main producing province in Canada, and for California and Ohio, the largest producers in the United States. The yields per acre realized in the three growing areas in the cost sample are in each case somewhat above the average of all growers in the respective years. The derived cost per pound, therefore, would tend to be somewhat higher for the average grower than those in the sample, but the comparison between them is not unduly affected. Ontario producers are competitive with those in Ohio, but California unit costs of production are very much lower. This cost advantage has not resulted in imports of fresh processing tomatoes, because of the perishable nature of the fresh product as well as transportation costs, but of already processed tomatoes, especially of tomato paste, which have increased substantially in recent years.

GREENHOUSE VEGETABLES

The Board made a detailed study of the greenhouse vegetable industry in its report, signed December 5, 1968, on Reference No. 140 - Greenhouse Vegetables. It is not proposed, in this study, to cover the same ground again, but some of the data, particularly those relating to costs, are made more current.

The major products of the greenhouse industry as a whole are ornamental flowers; but in so far as vegetables are concerned, tomatoes and cucumbers accounted for more than 99 per cent of the total value of sales in 1974. Of the total sales of vegetables, tomatoes accounted for 70.4 per cent, cucumbers for 28.6 per cent and all other vegetables for slightly less than 1 per cent.

Table 9: Summary Statistics on the Canadian Greenhouse Industry, 1974

Items	Farm Value of Sales, 1974	
	\$'000	%
Total Sales of Vegetables and of Ornamental Flowers, etc.	105,282	100.0
Farm value of sales of all greenhouse vegetables	17,014	16.2
Farm value of sales of greenhouse tomatoes and cucumbers combined	16,848	16.0
Farm value of sales of greenhouse tomatoes	11,981	11.4
Farm value of sales of greenhouse cucumbers	4,867	4.6
Farm value of sales of other greenhouse vegetables	166	0.2

Source: Statistics Canada.

In 1974 there were reported to be a total of 1,258 greenhouse operators in Canada, of which 999 sold flowers and 440, vegetables. These figures suggest that 259 firms produced vegetables only and 181, both vegetables and flowers. Total employment in the industry was 7,504 of which perhaps 1,500 to 2,000 were wholly or partially concerned with the growing of greenhouse vegetables. Of the firms reporting production of vegetables, 374 grew tomatoes, 203, cucumbers and 51, other vegetables. There are between 190 and 230 producers whose only vegetable crop is tomatoes and a number who specialize in cucumbers. As approximately one-half of the growers produce both cucumbers and tomatoes, it is difficult to differentiate between these crops in establishing costs for the industry.

The greenhouse vegetable industry was concentrated in Ontario. In 1974, Ontario accounted for \$13.6 million in greenhouse vegetable industry sales at the farm level, or 80 per cent of the Canadian total. British Columbia was second in importance, with \$1.3 million in greenhouse vegetable sales, or about 8 per cent of the total. Nova Scotia was third in importance, with \$0.9 million in sales, or about 6 per cent of the total. All other provinces combined accounted for about 7 per cent of total greenhouse vegetable sales.

Table 10: Provincial Breakdown of Greenhouse Vegetable Industry Sales in 1974

<u>Province</u>	<u>Value of Sales (1974)</u>	<u>Per Cent</u>
	- \$'000 -	%
Ontario	13,625	80.1
British Columbia	1,277	7.5
Nova Scotia	924	5.5
Alberta	749	4.4
Quebec	278	1.6
Other	161	0.9
Canada	17,014	100.0

Source: Statistics Canada.

Tomatoes accounted for \$12.0 million, or 70.4 per cent, of total greenhouse vegetable sales in 1974. Of the tomato total, Ontario accounted for \$10.1 million or 84.5 per cent, British Columbia for \$0.8 million or 6.8 per cent, Nova Scotia for \$0.6 million or 5.2 per cent, and all other provinces combined for \$0.4 million or 3.5 per cent.

Cucumbers accounted for \$4.9 million or 28.6 per cent of total greenhouse vegetable sales in 1974. Of the cucumber total, Ontario accounted for \$3.4 million or 69.3 per cent, Alberta, for \$0.7 million or 13.5 per cent, British Columbia, for \$0.5 million or 9.4 per cent, and all other provinces combined accounted for less than \$0.4 million or 7.8 per cent.

Costs of Production for Greenhouse Tomatoes and Cucumbers

The Board used the cost structure and the average costs of production for 1963-66 as published in the 1968 Tariff Board Report on Greenhouse Vegetables, Reference No. 140, as the basis for its examination of the profitability of this industry. Comparable cost estimates were obtained for 1973, and an estimate for 1975 was calculated based on projections of the more important cost elements such as labour and fuel, see Table 11. The data refer to Ontario, Essex County, greenhouse operations only. While those may, in general, reflect costs of production of greenhouse operators elsewhere in Canada, it is likely that fuel costs in these regions, with the exception of British Columbia, are higher than in Essex County.

Table 11: Greenhouse Vegetables: Costs of Production in Essex County; Average 1963-1966, 1973 and Projection for 1975

	All Areas (Glass) 1963-66	Essex County 1973	Essex County (a) 1975
	- \$ per greenhouse acre - (2 crops per year)		
<u>Fixed Costs</u>			
Taxes	756	1,070	1,284
Insurance	720	908	1,090
Maintenance (greenhouse and equipment)	600	2,275	2,730
Depreciation (greenhouse and equipment)	3,750	5,265	6,318
Total Fixed Costs	5,826	9,518	11,422
<u>Operating Costs</u>			
Hired labour (incl. family labour)	4,102	7,601	10,641
Production supplies	1,600	2,651	3,181
Heating	6,500	9,080	13,620
Mechanical equipment	275	619	743
Utilities	750	930	11,116
Interest, operating	280	684	821
Other (excl. marketing charges)	500	452	542
Total Operating Costs	14,007	22,017	30,664
Total Costs (before returns to investment and to operator's labour and management) (also excl. marketing charges)	19,833	31,535	42,086

(a) 1975 cost estimate derived by increasing 1973 fuel costs approximately 50 per cent, labour costs 40 per cent, and all other costs 20 per cent.

Source: Tariff Board Report, "Greenhouse Vegetables," Reference No. 140, for 1963-66 costs and background paper prepared for the Tariff Board by G.A. Fisher, P. Ag.

Greenhouse costs of production have escalated rapidly since 1963-66 (see Table 11). Total costs of production per acre, before return to investment and operators' labour and management, are estimated to have more than doubled during the period. While labour and fuel, the two more important cost elements, have increased the most, other cost items such as maintenance and depreciation also rose sharply.

In Table 12, the Board presents the production cost per acre including the return on investment, but excluding the return to the operator for his labour and management. It can be seen that costs of production at this level also are estimated to have doubled, from an average of \$25,677 per acre during 1963-66 to \$54,086 in 1975. Under the assumption that yields per greenhouse acre remained unchanged during this time the corresponding cost per pound of tomatoes rose from 13.1 cents in 1963-66 to 20.3 cents in 1973 and to 27.6 cents in 1975. The cost per pound of cucumbers increased from 6.3 cents to 13.2 cents. To the extent that yields have improved, the increase in unit costs would be somewhat overstated, and vice versa.

It is noticeable that returns to greenhouse operators for tomatoes have also escalated very rapidly. The figures in Table 12 are returns delivered at the packing plant, that is, after payment by the grower, of the commission, packing and grading charges and marketing board fee. The return on cucumbers has increased, as for greenhouse tomatoes, quite substantially from the mid sixties to 1973, but unlike tomatoes, has tended to level out since that time. In the case of tomatoes, prices to the grower have more than kept pace with increased costs and the return to the operator for his labour and management has risen from 3.8 cents per pound in 1963-66 to 8.2 cents in 1973 to 13.0 cents in 1975. On the other hand, costs have outpaced average gross returns for greenhouse cucumbers since 1973. Even so, the return to the grower for his labour and management in 1975, 4.3 cents per pound of cucumbers, though slightly more than half the figure for 1973, was still well above the average for 1963-66. The increase in prices for greenhouse tomatoes has been affected without any significant change in the volume produced; Ontario operators shipped 24.1 million pounds in 1973 compared with 25.2 million pounds in 1974 and a peak of 26.2 million pounds in 1972 but cucumber production has dropped sharply.

Greenhouse tomatoes and cucumbers compete largely with field-produced supplies from the United States and Mexico. The cost of field production is not only less, but has also increased less because fuel costs are a much smaller component of field than greenhouse production costs. On the other hand, the cost of transporting U.S. and Mexican field tomatoes and field cucumbers has increased greatly as a result of the higher fuel prices. However, a study by Professor M.E. Cravens of Ohio State University showed that fuel requirements for transporting tomatoes and cucumbers from warm, southern producing areas to the northern United States were only one-thirtieth to one-tenth the fuel requirements for greenhouse production of such vegetables.⁽¹⁾ Each pound of tomatoes requires an extra 2.5 pounds of fuel, (one-quarter of a gallon), to grow in a greenhouse than to transport from Florida or Mexico.

(1) M.E. Cravens, Comparison of Economics of Winter Production of Horticultural Products in Greenhouses in the U.S. with Outdoor Production in Areas Distant from the Market, Department of Ag. Ec. and Rural Soc., Ohio State University, March, 1974

Table 12: Average Costs and Returns per Pound for Greenhouse Tomatoes and Cucumbers, Average 1963-1966, 1973, and Projection for 1975

	<u>1963-66</u>	<u>1973</u>	<u>1975</u>
Total Production Costs per Acre ^(a) (Before returns to investment and to operator) (A)	\$ 19,833	\$ 31,535	\$ 42,086
Total Production Costs per Acre (After return to investment but no return to operator) (B)	\$ 25,677	\$ 39,698	\$ 54,086 ^(b)
Output per Acre ^(c) Tomatoes (lb.) ^(e)	196,020	196,020 ^(d)	196,020 ^(d)
Cucumbers (lb.) ^(e)	408,375	408,375	408,375
Costs per lb.			
(A) Tomatoes (¢/lb.)	10.1	16.1	21.5
(A) Cucumbers "	4.9	7.7	10.3
(B) Tomatoes "	13.1	20.3	27.6
(B) Cucumbers "	6.3	9.7	13.2
Returns per lb. Delivered to Plant ^(f)			
Tomatoes (¢/lb.)	16.9 ^(g)	28.5	40.6
Cucumbers "	9.3 ^(g)	17.7	17.5
Return to operator per lb. (Incl. return on investment)			
Tomatoes (¢/lb.)	6.8	12.4	19.1
Cucumbers "	4.4	10.0	7.2
(Excl. return on investment)			
Tomatoes (¢/lb.)	3.8	8.2	13.0
Cucumbers "	3.0	8.0	4.3

(a) From Table 11.

(b) Estimated by projecting 1973 cost data, as in Table 11, with the addition of raising capital costs to \$120,000 per acre, and raising return on investment to 10 per cent. Rate of return on investment was put at 8 per cent in 1973 and an average of 6 per cent for 1963-66.

(c) Spring and fall crop of tomatoes - poundage calculated from Ref. No. 140, p. 26.

(d) Assuming same production per acre as in 1963-66.

(e) Spring crop of cucumbers of 272,250 lb. per acre, (Ref. No. 140, p. 26, with 1 doz. = 10 lb.), and fall crop of tomatoes of 65,340 lb. being equivalent to 136,125 lb. of cucumbers (1 lb. tomatoes = 2.08 lb. of cucumbers).

(f) Delivered at packing plant, excluding marketing charges.

(g) Reference No. 140, pp. 25, 144, for the figures for 1963-66; the figures for 1973 and 1975 were derived by the Board from data provided by the Ontario Greenhouse Vegetable Producers' Marketing Board.

TARIFF CONSIDERATIONS

Fresh tomatoes are classified under tariff item 8724-1:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Tomatoes per pound	Free	Free or 1½ cts. or 10 p.c.	Free or 1½ cts. or 10 p.c.

The Free rate shall apply during the months of January, February and March.

During the remaining months in any 12 month period ending 31st March, the specific duty shall not be maintained in force in excess of 32 weeks, and the 10 per cent duty shall apply whenever the specific duty is not in effect.

The various rates of duty applicable to tomatoes since 1935 are set forth in Table 13.

Free entry under the British Preferential Tariff has applied throughout the period. The M.F.N. rate has been reduced in several steps as a result, first, of Trade Agreements with the United States and, later, of GATT negotiations, with the current levels being introduced in 1959. The Gen. rates have been the same as the M.F.N. rates since 1950. Although imported tomatoes are sold in pre-packed form, the additional packaging duty, applicable since 1959 to a number of vegetables subject to seasonal specific duties, has never been applied to tomatoes.

The Most-Favoured-Nation and General Tariff now have a threefold provision for tomatoes. They are free of duty in January, February, and March. In the remaining nine months of the year, they may be made subject to the specific duty, on a regional basis, for up to 32 weeks, and for the rest of the time the 10 p.c. rate applies. When the specific duty is applied for the maximum permitted period, the 10 p.c. rate is applicable for only 51 days a year.

The dates of the application and removal of the specific duty, since 1966, are set out in Appendix Table 16. Although the maximum period for which it can be applied is 224 days, only rarely has this figure been approached, with 1970 and 1973 being the most notable cases. In the latter year, free entry would have applied if the seasonal specific duty were not in effect because the off-season ad valorem duty of 10 per cent was temporarily suspended. It may well have been that the period of application was limited in other years because the 10 per cent ad valorem rate offered more protection than the specific rate, as would be the case when the value for duty exceeds 15 cents per pound.

Table 13: Tomatoes: Rates of Duty and Effective Dates,
1935 to Present

<u>Effective Date</u>	<u>B.P.</u>	<u>M.F.N.</u>	<u>General</u>
May 2, 1930 ^(a)	Free	27½ p.c. ^(b) not less than 2 cts./lb. ^(c)	30 p.c. not less than 2 cts./lb. ^(c)
Jan. 1, 1936 ^(a)	Free	15 p.c. not less than 2 cts./lb. ^(c)	30 p.c. not less than 2 cts./lb. ^(c)
Jan. 1, 1939 ^(a)	Free	10 p.c. ^(d) not less than 1½ cts./lb. ^(c)	30 p.c. ^(e) not less than 2 cts./lb. ^(c)
April 26, 1939 ^(b)	Free	27½ p.c. not less than 2 cts./lb. ^(c)	30 p.c. not less than 3 cts./lb. ^(c)
Jan. 1, 1948	Free	1½ cts./lb. (32 weeks) ^(f) or 10 p.c.	30 p.c. not less than 3 cts./lb.
June 1, 1950 ^(g)	Free	1½ cts./lb. (32 weeks) or 10 p.c.	1½ cts./lb. (32 weeks) or 10 p.c.
April 10, 1959	Free	Free ^(h) 1½ cts./lb. (32 weeks) ⁽ⁱ⁾ or 10 p.c.	Free ^(h) 1½ cts./lb. (32 weeks) ⁽ⁱ⁾ or 10 p.c.

- (a) The General Tariff applied to importation from the United States until December 31, 1935, from Mexico until February 8, 1946.
- (b) The statutory M.F.N. rate remained at 27½ p.c. but not less than 2¢/lb. from 1930 until 1947, but the rate applied was reduced to 15 p.c., but not less than 2¢/lb. (1936-1938) and to 10 p.c., not less than 1½¢/lb. (1939-1947) as a result of the Canada-United States Trade Agreements.
- (c) The minimum rate, originally applicable only between June 1 and October 1, became applicable all year round from October 13, 1932.
- (d) Tomatoes for use in the manufacture of soup were Free M.F.N., from Sept. 15 to Oct. 31, 1946.
- (e) The Gen. rate was reduced to 10 p.c., but not less than 1½¢/lb. for the periods Dec. 6, 1943-May 15, 1944, Dec. 1, 1944-May 15, 1945 and Dec. 1, 1945-May 15, 1946.
- (f) Not applied until 1950.
- (g) Tomatoes for use in the manufacture of soup were admitted at rates of Free M.F.N., 1½¢/lb. Gen., from Sept. 9 to Sept. 30, 1950; tomatoes for use in the manufacture of tomato products were admitted at 10 p.c. M.F.N. and 1½¢/lb. Gen., from Sept. 6 to Oct. 31, 1956.
- (h) Free entry is prescribed for the months of January, February and March.
- (i) The 10 p.c. rate was temporarily suspended, and off-season free entry substituted, from February 20, 1973 to February 19, 1974.

Appendix Table 17 gives the dutiable and non-dutiable imports of tomatoes for all years since 1966. For each year except 1973, dutiable imports would include both those subject to the specific duty and those subject to the ad valorem duty. The average values for duty have steadily increased and in 1974, for the first time, exceeded 15 cents per pound; in that year the specific duty was not applied in the major importing region, central Canada, because the off-season rate of 10 p.c. would provide equivalent or greater protection.

The ad valorem equivalent of the seasonal specific duty, which averaged 13.9 per cent for the years 1966 to 1970, fell below 10 per cent for the first time in 1974. In its brief to the Board, The Canadian Horticultural Council pointed out that the ad valorem equivalent of the duties on tomatoes had been 35 per cent in 1954 and 28.3 per cent in 1956.

Under the Tariff Schedules of the United States Annotated, under the general heading of vegetables, fresh, chilled or frozen, (but not otherwise reduced in size nor otherwise prepared or preserved), tomatoes are provided for in items 137.60 to 137.64 as follows:

Tomatoes:		Column	
		(1)	(2)
137.60	If entered during the period from March 1 to July 14, inclusive, or the period from September 1 to November 14, inclusive, in any year	2.1¢ per lb.	3¢ per lb.
136.61	If products of Cuba ..	1.8¢ per lb. ^(s)	
137.62	If entered during the period from July 15 to August 31, inclusive, in any year	1.5¢ per lb.	3¢ per lb.
137.63	If entered during the period from November 15, in any year, to the last day of the following February, inclusive	1.5¢ per lb.	3¢ per lb.
137.64	If products of Cuba ..	1.2¢ lb. ^(s)	

^(s) Suspended.

The Canadian Horticultural Council proposed that the specific duty on fresh tomatoes, under tariff item 8724-1, be raised from 1½ cents per pound to 3½ cents per pound, with a minimum ad valorem rate of 20 per cent. These rates were proposed to be applicable to imports under all tariffs. Furthermore the period of application of the seasonal duty was proposed for a length of 36 weeks; at

all other times the Free rate was to apply. The Council did not propose that tomatoes be made subject to any additional duty when imported in individual consumer packs. These proposals were, in essence, supported by the Ontario Greenhouse Vegetable Producers' Marketing Board.

The Canadian Food Processors Association proposed the institution of a separate tariff item for tomatoes for processing. It advocated that there be a seasonal duty of 10 per cent ad valorem, applicable for a maximum period of 32 weeks, with duty-free entry for the balance of the year.

The Canadian Fruit Wholesalers' Association proposed that a separate tariff item be established to protect the greenhouse tomato industry, including hydroponic production of tomatoes. Fresh field tomatoes would enter under a second tariff item with seasonal tariff protection for a period of 24 weeks. The Association supported the proposal of the Horticultural Council with respect to rates.

The general representations made by the Canadian Importers Association Inc., the National Farmers Union and the Consumers' Association of Canada would also be applicable to tomatoes. The Canadian Importers Association Inc. specifically supported the implementation of the Tariff Board's recommendation in Reference No. 140 - Greenhouse Vegetables, that the duty-free period be extended to cover the month of December. Such action, not implemented as yet, would limit the application of duties to a period of 35 weeks.

The effect of these proposals would be, in the first place to extend the duty-free period from a maximum of 13 weeks, as specified in tariff item 8724-1 during January, February, and March, to 16 weeks, inasmuch as the period of application of the seasonal duty was proposed for 36 weeks. Imports of tomatoes during these additional three weeks are at present dutiable at 10 p.c., the off-season rate. The maximum period of application of seasonal duties would be raised from the present 32 weeks, i.e., by four weeks. During these four weeks imports are currently dutiable at a rate of 10 p.c., and hence, the proposed seasonal specific duty of $3\frac{1}{2}$ cents per pound and the minimum ad valorem rate of 20 per cent would increase the level of protection for tomato growers during these four weeks. The proposals would raise the seasonal duty during the current period of application from $1\frac{1}{2}$ cents per pound to $3\frac{1}{2}$ cents, subject to an ad valorem minimum of 20 per cent. In effect, tomatoes valued at $17\frac{1}{2}$ cents per pound, or less, would be dutiable at $3\frac{1}{2}$ cents per pound and those with higher f.o.b. prices would be dutiable at 20 per cent ad valorem. The proposals would also abolish the off-season duty of 10 p.c., now applicable during the months of April to December whenever the seasonal specific duty is not in effect.

With regard to the generally agreed upon extension of the duty-free period from 13 to 16 weeks it can be seen in Appendix Table 4 that domestic shipments to the fresh market are negligible in the three months to which free entry now applies and are small in the shoulder months of April and December. The extension of the maximum period of application of seasonal duties to 36 weeks for regional application, with provision for division into two periods, would certainly provide protection to Canadian producers during their marketing seasons.

A specific seasonal duty of $3\frac{1}{2}$ cents per pound would have, on the basis of average unit import values in 1974, an ad valorem equivalent of close to 20 per cent. Since unit import values throughout the year vary considerably around this annual average, the $3\frac{1}{2}$ cents per pound specific duty would have a much higher equivalent during the field production season when fresh market tomatoes are cheaper than during the greenhouse tomato production season. Based on 1974 unit import values it would seem that the proposed specific seasonal duty of $3\frac{1}{2}$ cents per pound would be equivalent to 25 p.c. during the field production season and 10-15 p.c. during the greenhouse production season. Growers of fresh market field tomatoes would obviously benefit more from the higher seasonal rate than producers of greenhouse tomatoes. In fact during the proposed additional four weeks of application of the specific duty, the greenhouse operators would benefit very little because the current off-season rate is 10 p.c.

The difference in the level of protection provided by the $3\frac{1}{2}$ cents per pound specific duty with respect to fresh market greenhouse and field tomatoes, would be avoided to a large extent by the proposed minimum ad valorem rate of 20 per cent. In the case of imports during much of the greenhouse production season the minimum ad valorem rate would be the effective rate and would have an equivalence well in excess of $3\frac{1}{2}$ cents per pound. And while the grower of field tomatoes would enjoy a level of protection exceeding 20 p.c., this would probably be for a few years only until the unit value of imports had reached $17\frac{1}{2}$ cents per pound.

The proposal to provide protection for growers of greenhouse tomatoes separate from growers of field tomatoes would be necessary only if differential tariff treatment between them were desirable. It can be argued that a specific duty of $3\frac{1}{2}$ cents per pound and a minimum ad valorem rate of 20 per cent is excessive for fresh market field tomatoes and insufficient for growers of greenhouse tomatoes. Canadian growers of greenhouse tomatoes face most of their competition, not from imported greenhouse tomatoes, but from imported field tomatoes from Florida, California, and Mexico. Not only are domestic greenhouse tomatoes more costly to produce than imported field tomatoes, but this cost difference has increased substantially in recent years with the escalation in fuel and other costs. To compensate for these additional costs with higher tariff protection would require an increase well beyond that which would be necessary for the growers of field tomatoes.

Different rates of duty for field and greenhouse tomatoes could also be implemented by a single tariff item for fresh tomatoes that would provide for free entry during the off-season, an intermediate rate applicable for a maximum of 13-14 weeks to cover the period when Canadian field tomatoes are the domestic source of supply (the summer months) and a higher rate, applicable for perhaps 18-20 weeks, divisible into two periods, to be applied during the spring and fall greenhouse seasons. Such a structure would, however, be inequitable to producers of greenhouse tomatoes whose production season overlaps with the season for field tomatoes. This would be the case with Nova Scotia greenhouse producers who sell throughout the year.

One important consideration is whether it is desirable to provide additional protection for greenhouse tomatoes to compensate for the recent sharp rise in fuel costs, costs which can be expected to rise further in Canada and would require further tariff adjustment when consideration is given to the fact that the Canadian greenhouse industry supplies less than 25 per cent of Canadian consumption when its produce is being marketed, and that such action would greatly increase the cost to the Canadian consumer.

The Board estimated the costs and benefits of the additional protection embodied in the proposal of The Canadian Horticultural Council. It was calculated that the government would receive additional duties of \$2.6 million, producers benefits of \$1.7 million and wholesalers and retailers, a similar amount. The total additional cost to consumers would be \$6.1 million or \$1.35 per family of four per year. On the basis of an average yield of fresh field tomatoes for the fresh market 17,000 pounds (Ontario, 1974) the estimated benefit to the grower would amount to \$340 per acre, which would represent a significant incentive for increasing field tomato production. With an average annual volume of output of nearly 200,000 pounds, the gross returns on an acre of greenhouse would increase by an estimated \$4,000. As can be seen in Table 11, this latter amount would not even be enough to compensate for the increase in fuel costs between 1973 and 1975, although it will be recalled that the higher costs of producing greenhouse tomatoes has been passed on to the consumer.

Fresh tomatoes for processing currently are classified under tariff item 8724-1 along with fresh tomatoes for the fresh market. Such imports have been very small, because existing duties and freight costs, as well as the perishability of the product, have not made this attractive. If processing tomatoes continue to enter under the same tariff item as fresh market tomatoes, the proposed duty of $3\frac{1}{2}$ cents per pound would provide growers of processing tomatoes with an extremely high level of protection; in 1974, when the average farm value of processing tomatoes in Ohio was 3.3 cents per pound, this would have been over 100 p.c. The current duty of $1\frac{1}{2}$ cents per pound would be equivalent to between 40 and 50 p.c., already a high level of protection.

CONCLUSIONS

In formulating its recommendations for tomatoes, the Board has examined separately and collectively the costs, prices and marketing of field tomatoes for the fresh market and for processing and of greenhouse tomatoes. For the reasons set forth below, it has concluded that while a separate tariff item should be provided for tomatoes for processing, tomatoes for the fresh market, whether field - or greenhouse grown - should enter under one tariff item.

Whereas the total fresh market changed very little between the periods 1961-1965 and 1971-1974 (an increase of 3.7 per cent), the percentage supplied from domestic production dropped sharply, from 46.4 per cent to 31.5 per cent, representing increased import penetration. Greenhouse production nearly doubled, but this was far more than offset by the drop in field production. Exports were small and declining.

Although Ontario field growers are competitive in terms of costs with those in the United States, growers in British Columbia are not. Further, Mexican growers enjoy a considerable cost advantage which is not wholly offset by freight and brokerage charges. While only a very high rate of duty could make Canadian greenhouse tomatoes competitive in price with imported field tomatoes, they do also compete with imported greenhouse tomatoes, although Canadian greenhouse operators probably have higher costs and undoubtedly these costs have been increasing. Further, the ad valorem equivalent of the duties on tomatoes has been declining so that, in so far as fresh field tomatoes are concerned, the actual amount of duty paid is now approximately the same, on U.S. tomatoes, whether the rate applied is $1\frac{1}{2}$ cents per pound or the off-season rate of 10 p.c. For these reasons, the Board concludes that some increase in the rate of duty on tomatoes for the fresh market would be warranted at this time, and recommends an increase from $1\frac{1}{2}$ cents to $2\frac{1}{2}$ cents a pound. The Board further recommends a minimum seasonal ad valorem rate of 15 per cent.

The Board recognizes that the cost of producing greenhouse tomatoes has increased. However, Canadian growers of greenhouse tomatoes have been able to pass on most of the increased costs of production of recent years to Canadian consumers, with only a small loss in volume of output. The Board notes that an increase in the rate of duty during the greenhouse marketing season would add considerably more to consumer cost than to grower returns. The Board concludes that greenhouse tomatoes be accorded the same level of protection as field tomatoes.

The Board therefore recommends that there not be a separate tariff provision for tomatoes imported during the main greenhouse tomato production season, and that all fresh market tomatoes be entered under the tariff item "Tomatoes, n.o.p.," at a rate of $2\frac{1}{2}$ cents under the Most-Favoured-Nation and General Tariff with a minimum ad valorem rate of 15 per cent. In view of the negligible imports under the British Preferential Tariff, the Board recommends that such imports continue to enter free of duty.

The Board recommends that the period of application of the seasonal duty continue to be a maximum 32 weeks, which may be divided into two separate periods, with application to be determined on a regional basis.

Although pre-packaged tomatoes are imported into Canada, no packaging duty is applied at present, and none was requested. Consequently, the Board is not recommending that tomatoes be made subject to such a duty.

In view of the very high level of protection that would otherwise be provided by the recommended rates for fresh market tomatoes, the Board recommends that a separate tariff item be established for fresh tomatoes for processing. The recommended rates are 1 cent per pound under the Most-Favoured-Nation and General Tariff, with a minimum ad valorem rate of 15 per cent. The British Preferential Tariff rate is recommended at Free. Further, to prevent the loss of markets for Canadian growers through off-season processing, the Board recommended that this duty be applicable the year round.

RECOMMENDATIONS

The Board recommends that tariff item 8724-1 be deleted from Schedule "A" of the Customs Tariff and that there be inserted therein the following items:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
Tomatoes, n.o.p. per pound	Free	2½ cts. but not less than 15 p.c., or Free	2½ cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 32 weeks which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

Tomatoes for processing per pound	Free	1 ct. but not less than 15 p.c.	1 ct. but not less than 15 p.c.
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Tomatoes: Acreage and Number of Farms, by Province
and Region, 1961 and 1971

	1961		1971		
	No. of Acres	Acreage as % of Total	No. of Acres	Acreage as % of Total	No. of Farms Reporting
Atlantic Region	324	0.9	239	0.8	270
Nfld.	2	*	6	*	11
P.E.I.	9	*	9	*	22
N.S.	155	0.4	121	0.4	137
N.B.	158	0.5	103	0.4	100
Central Region	33,230	96.1	27,471	97.4	5,017
Que.	6,768	19.6	4,098	14.5	1,588
Ont.	26,462	76.5	23,373	82.8	3,429
Western Region	1,021	3.0	504	1.8	508
Man.	137	0.4	79	0.3	83
Sask.	11	*	21	0.1	34
Alta.	79	0.2	33	0.1	65
B.C.	794	2.3	371	1.3	326
Canada ^(a)	34,576	100.0	28,215	100.0	5,797

(a) Includes Yukon and Northwest Territories.

Source: Census of Canada 1961 and 1971.

Appendix Table 2a

Tomatoes: Field, Fresh, Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, by Province,
1961-1974

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74	% Change 1961-65 to 1971-74
- Acreage -								
Quebec	2,872	2,516	3,020	3,080	3,200	2,980	3,070	+ 6.9
Ontario	6,566	4,254	2,970	2,640	2,560	2,500	2,668	- 59.4
Manitoba	132	128	80	70	70	60	70	- 47.0
Others ^(a)	..	..	..	..	..	..	..	..
Canada	..	..	..	..	..	..	..	..
- Production, '000 lb. -								
Quebec	22,361	20,103	24,462	11,940	21,440	18,029	18,968	- 15.2
Ontario	92,880	67,055	53,724	46,144	45,642	38,187	45,924	- 50.6
Manitoba	2,707	1,890	880	742	840	520	746	- 72.4
Others ^(a)	11,104	10,071	5,135	7,646	8,046	6,261	6,772	- 39.0
Canada	129,052	99,118	84,201	66,472	75,968	62,997	72,410	- 43.9
- Average Yield, lb. -								
Quebec	7,786	7,990	8,100	3,877	6,700	6,050	6,179	- 20.6
Ontario	14,146	15,763	18,089	17,479	17,829	15,275	17,213	+ 21.7
Manitoba	20,508	14,766	11,000	10,600	12,000	8,667	10,657	- 48.0
Others ^(a)	..	..	..	..	..	..	..	..
Canada	..	..	..	..	..	..	..	..
- Farm Value, \$'000 -								
Quebec	949	1,231	1,536	1,077	1,737	1,709	1,515	+ 59.6
Ontario	4,352	4,205	3,722	4,367	6,363	5,563	5,004	+ 15.0
Manitoba	173	161	88	118	134	88	107	- 38.2
Others ^(a)	780	865	669	881	813	839	800	+ 2.7
Canada	6,254	6,463	6,015	6,443	9,047	8,199	7,426	+ 18.7
- Farm Value, ¢ per lb. -								
Quebec	4.2	6.1	6.3	9.0	8.1	9.5	8.0	+ 90.5
Ontario	4.7	6.3	6.9	9.5	13.9	14.6	10.9	+131.9
Manitoba	6.4	8.5	10.0	15.9	16.0	16.9	14.3	+123.4
Others ^(a)	7.0	8.6	13.0	11.5	10.1	13.4	11.8	+ 68.6
Canada	4.8	6.5	7.1	9.7	11.9	13.0	10.3	+114.6

(a) Maritimes and B.C.

Source: Derived from Statistics Canada data.

Appendix Table 2b

**Tomatoes: Field, Processing, Acreage, Production, Yield
per Acre, Farm Value and Farm Value per Pound,
by Province, 1961-1974**

	<u>Average 1961-65</u>	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>	<u>% Change 1961-65 to 1971-74</u>
- Acreage -								
Quebec	2,112 ^(b)	1,120 ^(b)	1,080	730	830	690	833	-60.6
Ontario	20,444	20,922	20,030	19,920	20,700	21,400	20,513	+ 0.3
Others ^(a)	..	..	..	..	..	..	..	..
Canada	..	..	..	..	..	..	..	..
- Production, '000 lb. -								
Quebec	19,004 ^(b)	11,808 ^(b)	10,280	2,402	5,430	4,160	5,568	-70.7
Ontario	648,646	621,479	733,614	655,144	788,000	688,000	716,190	+10.4
Others ^(a)	6,934	6,712	2,578	2,198	1,342	2,278	2,099	-69.7
Canada	674,584	639,999	746,472	659,744	794,772	694,438	723,857	+ 7.3
- Average Yield, lb. -								
Quebec	8,998	10,543	9,519	3,290	6,542	6,029	6,684	-25.7
Ontario	31,728	29,705	36,626	32,889	38,068	32,150	34,914	+10.0
Others ^(a)	..	..	..	..	..	..	..	..
Canada	..	..	..	..	..	..	..	..
- Farm Value, \$'000 -								
Quebec	306 ^(b)	226 ^(b)	189	64	116	132	125	-59.2
Ontario	12,250	14,638	17,039	15,205	18,300	24,100	18,661	+52.3
Others ^(a)	112	136	56	49	30	62	50	-55.4
Canada	12,668	15,000	17,284	15,318	18,446	24,294	18,836	+48.7
- Farm Value, ¢ per lb. -								
Quebec	1.6 ^(b)	1.9 ^(b)	1.8	2.7	2.1	3.2	2.2	+37.5
Ontario	1.9	2.4	2.3	2.3	2.3	3.5	2.6	+36.8
Others ^(a)	1.6	2.0	2.2	2.2	2.2	2.7	2.4	+50.0
Canada	1.9	2.3	2.3	2.3	2.3	3.5	2.6	+36.8

(a) 1961-1970 B.C. only; 1971-1974 Maritimes and B.C.

(b) Includes Maritimes.

Source: Derived from Statistics Canada data.

Tomatoes: Supply and Disposition Ratios, Canada, 1961-1974

Appendix Table 3

	Average 1961-65	Average 1966-70	1971	1972	1973	1974	Average 1971-74
			-	per cent	-		
<u>Per Cent of Domestic Production:</u>							
Sold for Processing	82.4	84.0	87.0	87.2	88.4	88.3	87.7
Sold to Domestic Fresh Market	17.4	15.7	12.8	12.4	11.4	11.6	12.0
Exported(a)	0.2	0.3	0.3	0.4	0.2	0.2	0.2
<u>Total Imports as Per Cent:</u>							
of Total Supply Available	30.1	40.1	37.4	42.9	44.4	48.9	43.6
of Total Domestic Disappearance	30.6	40.5	37.5	43.1	44.5	49.1	43.7
<u>Fresh Imports as Per Cent:</u>							
of Fresh Market Availability	53.6	62.2	63.2	69.4	69.8	71.1	68.5
of Fresh Exports(a)	9,290.4	9,205.1	8,338.7	7,641.5	13,603.5	18,072.7	10,731.2
of Fresh Market Consumption	53.9	62.6	63.7	70.1	70.2	71.4	68.9
<u>Processed Imports as Per Cent:</u>							
of Consumption in Processed Form	22.1	32.9	30.0	34.7	37.5	43.1	36.7
of Total Domestic Disappearance	16.2	24.6	23.4	26.4	29.5	34.2	28.6
<u>Per Cent of Fresh Market Consumption:</u>							
From Domestic Production	46.1	37.4	36.3	29.9	29.8	28.6	31.1
From Imports	53.9	62.6	63.7	70.1	70.2	71.4	68.9
<u>Per Cent of Total Domestic Disappearance:</u>							
Consumed in Processed Form	73.3	74.5	77.9	76.3	78.6	79.2	78.1
Consumed in Fresh Form	26.7	25.5	22.1	23.7	21.4	20.8	21.9
<u>Net Imports(b) as % of Total Domestic</u>							
Disappearance	29.1	39.4	37.2	42.7	44.2	48.7	43.5
Production as % of Total Domestic							
Disappearance	70.9	60.6	62.8	57.3	55.8	51.2	56.5

(a) Includes re-exports.

(b) Total imports minus total exports.

Source: Table 2.

Tomatoes: Estimated Monthly Distribution of Fresh Shipments^(a)
to Principal Markets, 1966-1974

Month	Average 1966-70	Average 1971-74	1971	1972	1973	1974
		-	thousand pounds		-	
Jan.	48	2	-	-	5	2
Feb.	-	1	-	5	-	-
Mar.	48	20	-	54	5	22
Apr.	1,460	1,470	1,981	1,268	1,268	1,363
May	7,356	8,171	7,257	7,680	9,326	8,421
June	10,897	12,856	16,440	10,250	13,659	11,075
July	16,746	15,429	17,753	15,592	10,990	17,379
Aug.	36,926	25,828	24,900	22,275	35,590	20,546
Sept.	28,444	20,537	25,447	21,100	16,945	18,657
Oct.	10,346	8,350	9,073	7,343	9,499	7,486
Nov.	5,825	5,459	4,892	7,341	4,260	5,341
Dec.	1,734	1,238	1,707	715	1,260	1,268
Year	119,831	99,360	109,451	93,622	102,807	91,561

(a) Domestic production for domestic fresh market sale.

Source: Derived from Statistics Canada and Agriculture Canada data.

Tomatoes: Estimated Monthly Distribution of Fresh Market
Consumption, 1961-65 to 1971-74

Month	Average 1961-65	Average 1966-70	Average 1971-74			
	Imports as % of Con- sumption	Imports as % of Con- sumption	From Domestic Produc- tion	From Imports	Total Consump- tion	Imports as % of Con- sumption
	- per cent	-	- thousand pounds	-	-	per cent
Jan.	96.6	99.7	2	18,405	18,407	99.9
Feb.	100.0	100.0	1	17,805	17,806	99.9
Mar.	100.0	99.8	20	22,577	22,597	99.9
Apr.	96.1	93.7	1,470	22,654	24,124	93.9
May	74.5	74.7	8,171	25,660	33,831	75.8
June	66.1	67.8	12,856	21,684	34,540	62.8
July	38.8	56.1	15,429	21,139	36,568	57.8
Aug.	13.3	25.3	25,828	14,856	40,684	36.5
Sept.	14.9	20.0	20,537	7,840	28,377	27.7
Oct.	53.4	54.6	8,350	15,408	23,758	64.9
Nov.	56.8	68.1	5,459	14,346	19,805	72.4
Dec.	78.3	89.4	1,238	18,154	19,392	93.6
Total	53.9	62.6	99,360	220,527	319,887	68.9

Source: Derived from Statistics Canada data.

Appendix Table 6

Tomatoes: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Western Europe</u>	<u>Others</u>	<u>Total</u>
		-	thousand pounds	-	
1966	117,628	67,364	56	449	185,497
1967	114,764	75,391	1,131	1,537	192,822
1968	125,259	67,972	888	78	194,197
1969	107,166	104,992	1,645	35	213,837
1970	106,522	107,607	1,349	141	215,619
Average 1966-70	114,268	84,665	1,014	448	200,394
1971	120,322	70,152	1,736	80	192,291
1972	149,212	69,266	565	193	219,235
1973	156,231	83,490	963	1,457	242,143
1974	169,392	58,902	107	38	228,439
1975	195,373	37,447	376	189	233,385
Average 1971-75	158,106	63,852	750	391	223,099

Source: Statistics Canada.

Appendix Table 7

Tomatoes: Imports by Province and Region, 1966-1975

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
		-	thousand pounds	-		
Atlantic Region	10,894	11,201	13,913	15,347	14,399	14,231
Nfld.	800	451	214	902	445	44
P.E.I.	451	531	629	604	484	529
N.S.	3,677	2,615	3,614	4,231	3,820	3,868
N.B.	5,966	7,604	9,456	9,610	9,650	9,790
Central Region	126,786	115,244	131,576	145,484	134,305	140,028
Que.	70,045	61,501	71,888	76,712	70,176	72,279
Ont.	56,741	53,743	59,688	68,772	64,129	67,749
Western Region	62,714	65,847	73,746	81,311	79,735	79,126
Man.	11,131	11,446	13,810	14,519	14,915	15,621
Sask.	7,476	6,909	7,517	8,768	7,411	7,485
Alta.	18,407	19,318	22,360	26,513	25,136	26,048
B.C.	25,700	28,174	30,059	31,511	32,273	29,972
Canada	200,394	192,291	219,235	242,143	228,439	233,385

Source: Statistics Canada.

Tomatoes: Imports by Month, 1966-1975

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds					-			
Jan.	16,277	8.1	18,724	8.4	17,419	17,557	20,126	19,999
Feb.	16,547	8.3	18,190	8.2	16,759	19,996	18,762	19,733
Mar.	20,818	10.4	22,860	10.2	23,895	24,855	23,617	23,992
Apr.	21,606	10.8	22,946	10.3	22,366	26,844	21,225	24,113
May	21,736	10.8	26,359	11.8	23,078	31,885	24,512	29,155
June	22,928	11.4	21,475	9.6	23,474	23,484	18,358	20,640
July	21,423	10.7	20,798	9.3	21,848	21,606	24,049	19,434
Aug.	12,507	6.2	14,332	6.4	16,922	13,475	17,242	12,235
Sept.	7,119	3.6	8,264	3.7	7,933	7,175	8,526	9,962
Oct.	12,427	6.2	15,528	7.0	14,500	17,735	16,966	16,007
Nov.	12,457	6.2	15,230	6.8	13,398	18,595	14,387	18,766
Dec.	<u>14,548</u>	<u>7.3</u>	<u>18,393</u>	<u>8.2</u>	<u>17,643</u>	<u>18,938</u>	<u>20,669</u>	<u>19,350</u>
Total	200,394	100.0	223,099	100.0	219,235	242,143	228,439	233,385

Source: Statistics Canada.

Tomatoes: Percentage Distribution of Fresh Market Imports from United States and Mexico, by State of Origin, by Region, 1972-1974

	California	Florida	South Carolina	Ohio	Other U.S.	Mexico	Total	% of U.S. Total	% of Mexico Total
				-	per cent	-			
1972									
Maritime Region	31.0	50.3	-	-	0.9	17.8	100.0	3.2	1.2
Central Region	24.4	34.6	1.3	2.7	3.2	33.8	100.0	62.4	54.4
Western Region	43.6	12.4	0.5	-	0.3	43.1	100.0	34.3	44.4
Canada	31.9	26.6	1.0	1.6	2.0	37.0	100.0	100.0	100.0
1973									
Maritime Region	26.7	41.8	-	-	0.8	30.7	100.0	2.7	1.8
Central Region	24.7	32.4	1.3	3.2	2.5	35.8	100.0	67.6	55.0
Western Region	37.4	11.5	-	0.1	1.1	50.0	100.0	29.7	43.2
Canada	29.2	25.3	0.8	2.0	2.0	40.7	100.0	100.0	100.0
1974									
Maritime Region	32.7	51.6	1.7	-	0.9	13.0	100.0	3.3	1.2
Central Region	25.2	41.4	2.6	4.1	3.0	23.7	100.0	64.1	47.2
Western Region	45.6	12.4	0.8	-	1.2	40.0	100.0	32.6	51.6
Canada	33.2	30.5	1.9	2.4	2.3	29.7	100.0	100.0	100.0

Source: Agriculture Canada.

Tomatoes: Exports by Country of Destination, 1966-1975

<u>Year</u>	<u>United States</u>	<u>Caribbean Area</u>	<u>St. Pierre & Miquelon</u>	<u>Others</u>	<u>Total</u>
	- thousand pounds -				
1966	1,576	11	16	-	1,604
1967	2,215	14	8	60	2,297
1968	1,520	2	21	11	1,553
1969	1,166	4	24	3	1,198
1970	2,935	1	31	-	2,966
Average 1966-70	1,882	6	20	15	1,924
1971	1,856	12	31	-	1,899
1972	1,472	15	19	-	1,506
1973	1,030	15	22	36	1,103
1974	849	37	12	-	898
1975	824	64	9	2	899
Average 1971-75	1,206	29	19	8	1,261

Source: Statistics Canada.

Tomatoes: Exports by Month, 1966-1975

<u>Month</u>	<u>Average 1966-70</u>	<u>%</u>	<u>Average 1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -							
Jan.	3	0.2	20	1.6	10	12	30	48
Feb.	6	0.3	27	2.1	34	34	28	41
Mar.	2	0.1	37	2.9	3	101	37	45
Apr.	41	2.1	26	2.1	13	34	29	45
May	390	20.3	202	16.0	277	137	50	4
June	250	13.0	155	12.3	160	102	107	133
July	283	14.7	201	15.9	214	164	88	216
Aug.	308	16.0	236	18.7	314	209	90	201
Sept.	119	6.2	138	10.9	185	149	158	53
Oct.	186	9.7	86	6.8	83	67	98	83
Nov.	290	15.1	97	7.7	196	59	101	11
Dec.	44	2.3	36	2.9	19	36	82	18
Total	1,924	100.0	1,261	100.0	1,506	1,103	898	899

Source: Statistics Canada.

Tomatoes: Exports by Province and Region, 1972-1975

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	- thousand pounds -			
Atlantic Region	20	22	36	31
N.S.	19	22	36	31
N.B.	1	-	-	-
Central Region	1,442	1,037	862	836
Que.	8	56	7	85
Ont.	1,434	981	855	751
Western Region	44	44	*	32
Man.	8	-	-	-
B.C.	36	44	*	32
Canada	1,506	1,103	898	899

Source: Statistics Canada.

Appendix Table 13b.

Tomatoes: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto				Winnipeg				Vancouver		
	Field		Greenhouse		Field		Greenhouse		Field	Greenhouse	
	Cal., Fla.	Mex.	Ont.	Ont.	Cal., Fla.	Mex.	Man.	Man.		Cal., Fla., Mex.	B.C.
	6 x 7, - 30-lb. ctn.	-	11 qt. flat	med.(a) 10-lb. ctn.	6 x 7, - 30-lb. ctn.	-	25 lb. ctn.	10 lb. ctn.	-	6 x 7, - 30-lb. ctn.	-
						-	cents per pound	-			
Jan. 4	27.5	27.9			28.3	28.8				32.1	
11	25.8	25.8			26.7	26.7				32.1	
18	25.4	24.2			27.8	24.2				32.1	
25	24.6	20.8			20.8	22.3				25.8	
Feb. 1	36.7	35.8				22.1				29.4	
8	55.0	55.0				32.1				36.5	
15	45.8	46.7				34.4				40.0	
22	31.7	28.3				30.4				35.8	
Mar. 1	30.8	26.7				23.8				32.1	
8	30.8	26.7				26.7				31.6	
15	23.3	21.7				22.5				25.2	
22	24.6	18.8				18.3				21.9	
29	20.4	17.9				17.3				22.8	
Apr. 5	25.8	24.6				18.8				27.9	
11	36.7	42.5		58.8	26.8	27.5				45.4	
18	35.8	40.8		58.8	37.9	35.8				44.8	
25	39.2	40.0		61.3	34.2	35.0				41.2	
May 3	44.2	47.5		51.3	37.5	35.0				41.2	
10	36.7	36.7		51.3	32.5	26.5				40.0	
17	33.3	34.2		51.3	33.2	25.8		65.0		34.4	61.3
24	30.8	30.8		46.3	32.8	25.4				33.6	61.3
31	32.5	32.5		46.3	32.5	27.1		65.0		37.1	61.5
June 7	33.3	33.3		26.3	34.2	30.4		65.0		40.8	61.5
14	30.8			26.3	30.8	29.8		65.0		36.6	55.0
21		30.8		41.3	33.8	32.1		65.0		40.0	55.0
28		33.3		41.3				65.0		37.4	55.0

Tomatoes: Weekly Wholesale to Retail Prices at Toronto, Winnipeg and Vancouver, 1974

Week Ending	Toronto				Winnipeg				Vancouver			
	Field		Greenhouse		Field		Greenhouse		Field		Greenhouse	
	Cal., Fla.	Mex.	Ont.	Ont.	Cal., Fla.	Mex.	Man.	Man.	Cal., Fla.	Mex.	B.C.	
	6 x 7, - 30-lb. ctn. -	flat	11 qt. flat	med. (a) 10-lb. ctn.	6 x 7, - 30-lb. ctn. -	25 lb. ctn.	10 lb. ctn.		6 x 7, - 30-lb. ctn. -	-	20 lb. ctn.	
					-	cents per pound	-					
July 5	30.0		27.9	32.8	32.5		65.0		34.4		55.0	
12	29.2		26.5	32.5	30.8		65.0		32.4		55.0	
19	29.2		22.1	28.8	22.5		65.0		29.7		49.4	
26	27.5		25.0	28.8	24.2		65.0		28.8		49.4	
Aug. 2	25.8		20.6	28.8	25.8		65.0		27.2		38.8	
9	20.4		15.4		23.8		51.3		25.8		38.8	
16			16.2		22.8		47.5		27.8		38.8	
23			18.4		25.8		47.5		31.9		40.0	
30			13.2		25.4		47.5		30.3		41.3	
Sept. 6			14.0		25.0	24.0	47.5		31.1		41.3	
13	25.4		15.4		25.3	24.3	47.5		30.1		41.3	
20	24.6		14.7		24.6	18.9	52.5		28.8		41.3	
27	21.3		16.2		22.9	19.6	52.5		28.8		41.3	
Oct. 4	24.2				25.4	19.6	52.5		28.8		41.3	
11	24.2			31.8	26.3		50.0		29.8			
18	25.8			33.0	26.7		52.5		29.8			
25	26.3			27.5	26.3		52.5		31.1			
Nov. 1	28.3			28.8	30.4		52.5		32.1			
8	34.2			31.3	35.8		52.5		34.6		60.8	
15	46.7			38.8	43.8		55.0		48.8		58.2	
22	47.5			43.8	41.7		72.0		48.0		58.2	
29	29.2			35.0	38.0				39.3		44.4	
Dec. 6	25.4			33.8	30.0				33.3		44.4	
13	22.9			31.3	27.9				37.8			
20	22.9			28.8	26.3				35.7			
27	27.5			28.8	25.1				35.7			

(a) Large tomatoes from April 18 to May 31st.

Source: Agriculture Canada.

Appendix Table 14a (concl.)

Imported Tomatoes: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs;
Cost of Duty; Toronto; Selected data by Month, 1972-1974

Month of Shipment	1972					1973					1974				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
July	Fla.	13.4	3.6	1.5	18.5	Fla.	22.6	6.0	1.6	30.2	Fla.	12.2	1.8	1.2	15.2
	Calif.	11.1	2.9	1.1	15.1	"	24.6	6.7	1.7	33.0	"	21.7	3.9	2.1	27.7
	"	15.0	3.5	1.5	20.0	-	-	-	-	-	Calif.	16.8	3.8	1.6	22.2
	-	-	-	-	-	-	-	-	-	-	"	21.6	4.0	2.1	27.7
	-	-	-	-	-	-	-	-	-	-	N.J.	20.0	1.8	2.0	23.8
August	Fla.	14.9	4.9	1.8	21.6	-	-	-	-	-	Calif.	13.4	4.0	1.3	18.7
	Calif.	8.5	3.4	1.6	13.5	-	-	-	-	-	-	-	-	-	-
	"	13.8	3.8	1.7	19.3	-	-	-	-	-	-	-	-	-	-
September	-	-	-	-	-	Fla.	10.2	4.9	1.7	16.8	Calif.	11.5	3.8	1.1	16.4
	-	-	-	-	-	Mich.	16.3	1.8	1.6	19.7	-	-	-	-	-
	-	-	-	-	-	Calif.	8.9	4.8	1.6	15.3	-	-	-	-	-
	-	-	-	-	-	"	9.2	4.0	1.7	14.9	-	-	-	-	-
October	Calif.	9.7	3.4	1.6	14.7	Calif.	12.8	3.6	1.6	18.0	Calif.	11.5	3.8	1.1	16.4
	"	15.1	3.2	1.5	19.8	"	16.3	4.5	1.4	22.2	"	13.7	3.8	1.4	18.9
	Fla.	10.2	3.3	1.6	15.1	Fla.	10.2	4.9	1.7	16.8	"	15.1	5.4	1.5	22.0
	-	-	-	-	-	"	21.3	3.8	1.6	26.7	-	-	-	-	-
November	Calif.	17.6	3.5	1.7	22.8	Calif.	13.4	3.8	1.6	18.8	Calif.	30.9	4.9	3.1	38.9
	"	20.8	3.3	2.0	26.1	Fla.	13.0	3.8	1.6	18.4	Fla.	20.9	3.2	2.1	26.2
	Fla.	22.2	3.3	2.1	27.6	"	20.3	3.8	1.6	25.7	"	27.5	4.2	2.7	34.4
	"	22.8	3.3	2.2	28.3	"	25.8	3.8	1.6	31.2	"	35.8	4.2	3.5	43.5
December	Fla.	12.5	3.3	1.2	16.0	-	-	-	-	-	-	-	-	-	-
	"	15.0	3.3	1.4	19.7	-	-	-	-	-	-	-	-	-	-
	"	17.6	3.3	1.8	22.7	-	-	-	-	-	-	-	-	-	-

Source: Tariff Board survey.

Appendix Table 14b (concl.)

Imported Tomatoes: Total Landed Cost; Cost f.o.b.; Freight, Brokerage and Other Costs; Cost of Duty; Montreal, Winnipeg and Vancouver; Selected Data by Month, 1974															
Month of Shipment	Montreal					Winnipeg					Vancouver				
	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost	Source	Cost f.o.b.	Cost of Freight	Duty Paid	Total Landed Cost
										- cents per pound					
July	Calif.	10.4	3.9	1.1	15.4	Fla.	19.2	4.4	1.9	25.5	Calif.	11.7	2.5	1.7	15.9
	"	24.7	9.5	2.4	36.7	Calif.	13.3	4.8	1.7	19.8	"	19.2	2.8	1.9	23.9
	-	-	-	-	-	"	14.2	4.6	1.4	20.2	"	25.5	3.3	2.6	31.4
August	Calif.	19.2	5.8	1.9	27.1	-	-	-	-	-	-	-	-	-	-
September	Calif.	8.8	4.4	1.7	14.9	Calif.	13.7	4.2	1.8	19.7	Calif.	13.5	3.4	1.7	18.6
	"	9.6	5.7	1.2	16.5	-	-	-	-	-	"	15.3	3.2	1.7	20.3
	"	10.0	4.6	1.7	16.3	-	-	-	-	-	"	16.8	3.2	1.7	21.8
October	Calif.	18.6	4.8	1.8	25.3	Calif.	13.7	4.6	1.8	20.0	Calif.	15.2	3.6	1.5	20.3
	-	-	-	-	-	"	17.0	4.0	1.8	22.8	"	18.3	3.3	1.8	23.4
	-	-	-	-	-	"	18.3	4.8	1.8	24.9	"	20.2	4.5	2.0	26.7
November	Fla.	16.5	4.4	1.5	22.4	Fla.	19.2	4.2	1.7	25.0	Calif.	23.3	3.2	1.7	28.2
	-	-	-	-	-	-	-	-	-	-	"	33.5	3.1	1.7	38.3
	-	-	-	-	-	-	-	-	-	-	"	36.7	2.9	1.7	41.3
December	Fla.	10.8	4.4	1.2	16.3	Fla.	15.8	4.1	1.7	21.7	Calif.	20.2	2.9	1.7	24.8
	"	12.2	4.4	1.3	20.0	-	-	-	-	-	-	-	-	-	-
	"	17.1	4.0	1.6	22.8	-	-	-	-	-	-	-	-	-	-

Source: Tariff Board survey.

Tomatoes: Acreage, Production, Yield per Acre, Farm Value
and Farm Value per Pound, United States, by
States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
	- Acreage -					
California		192,800	209,700	249,500	278,600	232,650
Florida(a)		41,100	46,100	40,700	33,200	40,275
Indiana		16,600	16,600	16,100	17,200	16,625
Ohio		27,900	26,230	19,800	26,800	25,183
Texas		13,000	10,800	11,800	9,700	11,325
Other States		99,640	100,700	96,200	96,610	98,288
Total	449,202	391,040	410,130	434,100	462,110	424,346
	- Production, '000 lb. -					
California		8,331,900	9,730,900	10,409,200	12,388,500	10,215,125
Florida(a)		592,800	684,800	675,700	706,600	664,975
Indiana		605,600	499,200	431,200	369,100	476,275
Ohio		1,258,200	980,500	611,600	756,800	901,775
Texas		126,800	63,500	94,400	81,000	91,425
Other States		1,895,600	1,633,200	1,601,900	1,734,500	1,716,300
Total	12,668,208	12,810,900	13,592,100	13,824,000	16,036,500	14,065,875
	- Average Yield, lb. -					
California		43,215	46,404	41,720	44,467	43,908
Florida(a)		14,423	14,855	16,602	21,283	16,511
Indiana		36,482	30,072	26,783	21,459	28,648
Ohio		45,097	37,381	30,889	28,239	35,809
Texas		9,754	5,880	8,000	8,351	8,073
Other States		19,024	16,218	16,652	17,954	17,462
Total	28,202	32,761	33,141	31,845	34,703	33,147
	- Farm Value, \$'000 -					
California		213,688	258,741	312,582	491,673	319,171
Florida(a)		88,506	107,620	105,372	131,051	108,137
Indiana		13,261	12,097	12,383	13,823	12,891
Ohio		26,612	21,531	16,607	27,565	23,079
Texas		10,615	6,774	8,499	9,185	8,768
Other States		90,474	92,175	105,790	124,966	103,351
Total	409,985	443,156	498,938	561,233	798,263	575,398
	- Farm Value, ¢ per lb. -					
California		2.6	2.7	3.0	4.0	3.1
Florida(a)		14.9	15.7	15.6	18.5	16.3
Indiana		2.2	2.4	2.9	3.7	2.7
Ohio		2.1	2.2	2.7	3.6	2.6
Texas		8.4	10.7	9.0	11.3	9.6
Other States		4.8	5.6	6.6	7.2	6.0
Total	3.2	3.5	3.7	4.1	5.0	4.1

(a) Fresh only.

Source: U.S. Department of Agriculture.

Tomatoes: Fresh Market Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, United
States, by States, 1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
California		29,100	30,800	31,500	28,700	30,025
Florida		41,100	46,100	40,700	33,200	40,275
Indiana		2,300	2,300	2,200	2,100	2,225
Ohio		1,900	1,930	1,800	1,700	1,833
Texas		9,300	9,000	8,900	7,100	8,575
Other States (a)		52,610	54,980	53,900	51,610	53,275
Total	147,378	136,310	145,110	139,000	124,410	136,208
- Production, '000 lb. -						
California		572,500	678,600	686,400	693,200	657,675
Florida		592,800	684,800	675,700	706,600	664,975
Indiana		24,200	29,900	30,800	24,200	27,275
Ohio		20,100	19,200	18,000	20,400	19,425
Texas		54,800	47,000	44,400	37,400	45,900
Other States (a)		515,400	525,200	499,600	515,000	513,800
Total	1,956,200	1,779,800	1,984,700	1,954,900	1,996,800	1,929,050
- Average Yield, lb. -						
California		19,674	22,032	21,790	24,153	21,904
Florida		14,423	14,855	16,602	21,283	16,511
Indiana		10,522	13,000	14,000	11,524	12,258
Ohio		10,579	9,948	10,000	12,000	10,597
Texas		5,892	5,222	4,989	5,268	5,353
Other States (a)		9,797	9,553	9,269	9,979	9,644
Total	13,273	13,057	13,677	14,064	16,050	14,163
- Farm Value, \$'000 -						
California		81,778	104,852	112,778	118,593	104,500
Florida		88,506	107,620	105,372	131,051	108,137
Indiana		2,185	3,110	3,694	2,493	2,871
Ohio		2,902	3,218	3,132	3,080	3,083
Texas		9,225	6,485	7,146	7,849	7,676
Other States (a)		62,822	69,287	80,026	82,175	73,578
Total	207,781	247,418	294,572	312,148	345,241	299,845
- Farm Value, ¢ per lb. -						
California		14.3	15.5	16.4	17.1	15.9
Florida		14.9	15.7	15.6	18.5	16.3
Indiana		9.0	10.4	12.0	10.3	10.5
Ohio		14.4	16.8	17.4	15.1	15.9
Texas		16.8	13.8	16.1	21.0	16.7
Other States (a)		12.2	13.2	16.0	16.0	14.3
Total	10.6	13.9	14.8	16.0	17.3	15.5

(a) Includes Hawaii.

Source: U.S. Department of Agriculture.

**Tomatoes: Processing Market Acreage, Production, Yield per Acre,
Farm Value and Farm Value per Pound, United States,
by States, 1966-1974**

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
California		163,700	178,900	218,000	249,900	202,625
Florida(a)		..	..	..	..	..
Indiana		14,300	14,300	13,900	15,100	14,400
Ohio		26,000	24,300	18,000	25,100	23,350
Texas		3,700	1,800	2,900	2,600	2,750
Other States		<u>47,030</u>	<u>45,720</u>	<u>42,300</u>	<u>45,000</u>	<u>45,013</u>
Total	301,824	254,730	265,020	295,100	337,700	288,138
- Production, '000 lb. -						
California		7,759,400	9,052,300	9,722,800	11,695,300	9,557,450
Florida(a)		..	..	..	..	..
Indiana		581,400	469,300	400,400	344,900	449,000
Ohio		1,238,100	961,300	593,600	736,400	882,350
Texas		72,000	16,500	50,000	43,600	45,525
Other States		<u>1,380,200</u>	<u>1,108,000</u>	<u>1,102,300</u>	<u>1,219,500</u>	<u>1,202,500</u>
Total	10,712,008	11,031,100	11,607,400	11,869,100	14,039,700	12,136,825
- Average Yield, lb. -						
California		47,400	50,600	44,600	46,800	47,168
Florida(a)		..	..	..	..	..
Indiana		40,657	32,818	28,806	22,841	31,181
Ohio		47,619	39,560	32,978	29,339	37,788
Texas		19,459	9,167	17,241	16,769	16,555
Other States		<u>29,347</u>	<u>24,234</u>	<u>26,059</u>	<u>27,100</u>	<u>26,715</u>
Total	35,491	43,305	43,798	40,221	41,574	42,122
- Farm Value, \$'000 -						
California		131,910	153,889	199,804	373,080	214,671
Florida(a)		..	..	..	..	..
Indiana		11,076	8,987	8,689	11,330	10,020
Ohio		23,710	18,313	13,475	24,485	19,996
Texas		1,390	289	1,353	1,336	1,092
Other States		<u>27,652</u>	<u>22,888</u>	<u>25,764</u>	<u>42,791</u>	<u>29,774</u>
Total	202,204	195,738	204,366	249,085	453,022	275,553
- Farm Value, ¢ per lb. -						
California		1.7	1.7	2.1	3.2	2.2
Florida(a)		..	..	..	..	..
Indiana		1.9	1.9	2.2	3.3	2.2
Ohio		1.9	1.9	2.3	3.3	2.3
Texas		1.9	1.8	2.7	3.1	2.4
Other States		<u>2.0</u>	<u>2.1</u>	<u>2.3</u>	<u>3.5</u>	<u>2.5</u>
Total	1.9	1.8	1.8	2.1	3.2	2.3

(a) Included with "Other States."

Source: U.S. Department of Agriculture.

Tomatoes: Dates of Application and Removal of the Seasonal,
Specific Duty, by Tariff Region, 1966-1975

Year ^(a)	Maritime Provinces			Central Canada ^(b)			Western Canada ^(c)		
	Application	Removal	Days in Effect	Application	Removal	Days in Effect	Application	Removal	Days in Effect
1966	-	-	-	Aug. 4	Oct. 28	85	Aug. 5	Oct. 13	69
1967	Sept. 6	Oct. 23	47	July 18	Oct. 23	97	July 20	Oct. 23	95
1968	Sept. 6	Oct. 16	40	July 11	Nov. 19	131	Aug. 9	Oct. 21	73
1969	Sept. 11	Oct. 17	36	July 11	Oct. 17	98	Aug. 1	Oct. 31	91
1970	May 12	Sept. 30	141	May 8	Dec. 11	217	May 13	Dec. 22	223
1971	Aug. 27	Oct. 7	42	Aug. 4	Nov. 18	106	Aug. 6	Nov. 18	104
1972	-	-	-	July 28	Oct. 26	90	July 5	Dec. 15	163
1973	Apr. 3	Oct. 19	199	Apr. 25	Dec. 5	224	May 15	Dec. 25	224
1974	Sept. 6	Dec. 31	116	-	-	-	July 16	Dec. 31	168
1975	Aug. 29	Dec. 31	124	-	-	-	Aug. 8	Dec. 31	145

^(a) Government fiscal year commencing April 1st, ending March 31st of following year.

^(b) Includes Quebec and Ontario east of Thunder Bay, Ontario.

^(c) Includes Thunder Bay and west thereof.

Source: National Revenue.

Tomatoes: Dutiable Imports and the Ad Valorem Equivalent of the M.F.N.
Specific Duty, 1966-1975

Year	Imports			Price f.o.b. Dutiable ¢/lb.	M.F.N. Specific Duty ¢/lb.	Ad Valorem Equivalent of M.F.N. Specific Duty %
	Total '000 lb.	Non- Dutiable '000 lb.	%			
1966	185,497	55,874	30.1	10.6	1.5	14.2
1967	192,822	61,984	32.1	10.4	1.5	14.4
1968	194,197	53,514	27.6	11.6	1.5	12.9
1969	213,837	66,787	31.2	11.2	1.5	13.4
1970	215,619	61,679	28.6	10.3	1.5	14.6
Average 1966-70	200,394	59,967	29.9	10.8	1.5	13.9
1971	192,291	56,823	29.6	13.5	1.5	11.1
1972	219,235	64,412	29.4	13.2	1.5	11.4
1973	242,143	117,578	48.6	14.9	1.5	10.1
1974	228,439	73,948	32.4	17.2	1.5	8.7
1975	233,385	71,505	30.6	19.8	1.5	7.6
Average 1971-75	233,099	76,853	34.4	15.8	1.5	9.5

Source: Statistics Canada.

WATERCRESS

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WATERCRESS

Watercress (Nasturtium officinale) is a perennial belonging to the Cruciferae mustard family. It is a prostrate or trailing plant, native of Europe, but now extensively naturalized in other parts of the world. It thrives in ditches, pools and streams but can also be grown under controlled conditions in greenhouses, hotbeds, and cold frames. It is readily grown or cultivated by seeding or the planting of cuttings.

Watercress is a good source of calcium (151 milligrams per 100 grams), iron (1.7 milligrams per 100 grams), Vitamin A (490 milligrams per 100 grams), and ascorbic acid (79 milligrams per 100 grams). It is a perishable product, capable of remaining fresh from four to seven days only, under high humidity refrigeration.

PRODUCTION AND CONSUMPTION

Commercial production of watercress in Canada is very limited; on the basis of marketings at the 12 principal markets in Canada, production amounted to 3,000 pounds in 1973. While this understates actual production to some extent it does indicate that only small volumes are produced; there were no marketings of domestically grown watercress reported in 1972 or 1974. Imports are almost the sole source of supply, and it is clear from import figures that domestic consumption of this vegetable has increased very rapidly. Imports totalled 1,630,000 pounds in 1974, compared to only 79,000 pounds in 1966.

PRICES

The only price information available to the Board concerns the unit value of watercress imports as reported by Statistics Canada. These unit values are on an f.o.b. basis. Over the 1966-74 period the unit value of imports declined from 16 cents per pound over the 1966-70 period to 12 cents per pound over the 1971-73 period. In 1974, however, it was 13.2 cents per pound.

The lower prices were probably an important factor in the expansion of domestic consumption, together with a greater concern about nutrition. Watercress is largely consumed fresh. However, according to acquisition data for the domestic food processing industry, some watercress is apparently also used in the manufacture of certain food products, e.g., mixed vegetable juices.

Practically all imports come from the United States, although in recent years small amounts have come from Trinidad and Mexico. Three-quarters of the imports enter Canada during the November to May period.

TARIFF CONSIDERATIONS

Watercress is classified under tariff item 8725-1 which reads as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>G.T.</u>
Watercress	Free	Free	30 p.c.

The British Preferential Tariff has traditionally provided for free entry of watercress from countries accorded this preferential treatment. As a result of the Trade Agreements with the United States, the M.F.N. rate was reduced from 27½ p.c. to 15 p.c. in 1936 and to 10 p.c. in 1939; this latter rate was bound under GATT in 1948 and became the statutory rate in 1950. Effective January 1, 1968, the M.F.N. duty was removed and free entry under the M.F.N. Tariff is now bound under GATT.

No party appearing before the Board proposed that this tariff item be changed, with respect to either nomenclature or rate of duty. Increasing the rate of duty on a year-round basis would affect the Canadian consumer adversely and would, of course, yield no producer benefit during the months when only imported watercress would be available. Furthermore, even a seasonal duty would, in view of the small volumes currently produced in Canada, result in little benefit to Canadian growers. A tariff level which would result in substantial additions to Canadian production would, in the opinion of the Board, be unwarranted.

In addition to Nasturtium officinale (alternate name Rorippa nasturtium) the name watercress is sometimes applied to a number of other cresses which may be used as vegetables, particularly in salads. These include:

Marsh cress, also known as yellow watercress or watercress - species Rorippa islandica and R. palustris.

American watercress, also known as watercress - species Cardamine rotundifolia.

Samphire, or samfire, also known as Peter's cress and sometimes called watercress - species Crithmum maritimum and Salicornia europaea.

The Board has no information as to whether importations of watercress might include importations of any of these species. Like watercress, they grow wild or may be cultivated; no data are available regarding Canadian production although some could grow in this country.

There are also a number of other cresses, to which the name watercress is not applied, which, when cultivated or picked from natural growth, are or have been used in various parts of the world as vegetables. At least some of these may flourish in Canada, but, again, no data are available regarding marketings or uses of these products. These include:

Garden cress, known also as garth cress, garden peppergrass or peppergrass, and sometimes just as cress - species Lepidium sativum.

California peppergrass - Brassica japonica.

Longwood samphire - Pharnaceum acidum.

Upland or winter cress, known also as Belle Isle cress, scurvy-grass, French cress, land cress or winter rocket - Barbarea vulgaris and B. verna.

Indian cress or Nasturtium (the garden plant whose leaves are used in salads - Tropaeolum majus).

All the foregoing, if imported into Canada for use as vegetables, would be properly classified in tariff item 8731-1, as vegetables, n.o.p., at the same rates of duty as are applied to watercress.

CONCLUSIONS

With virtually no watercress production in Canada and imports constituting almost the sole source of supply, the Board feels that the rates of duty with respect to tariff item 8725-1 should remain as they are at present: B.P. Free; M.F.N. Free; and Gen. 30 p.c.

Because of the possible confusion between watercress, Nasturtium officinale, and other cresses, the Board further recommends that all cresses be brought under a single tariff item. No changes in rates of duty would be involved.

RECOMMENDATIONS

The Board recommends that tariff item 8725-1 be deleted and replaced by the following item:

	<u>British Prefer- ential Tariff</u>	<u>Most Favoured- Nation Tariff</u>	<u>General Tariff</u>
Watercress and other cresses ...	Free	Free	30 p.c.

Watercress: Imports by Month, 1966-1974

<u>Month</u>	<u>Average</u> <u>1966-70</u>	<u>%</u>	<u>Average</u> <u>1971-74</u>	<u>%</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
- thousand pounds -								
Jan.	32	10.0	118	9.4	82	106	114	171
Feb.	19	6.0	118	9.4	47	131	139	156
Mar.	40	12.7	148	11.8	146	136	134	178
Apr.	37	11.6	164	13.0	139	145	170	201
May	32	10.3	136	10.8	80	131	187	148
June	19	6.2	89	7.0	54	87	98	116
July	9	2.9	69	5.5	40	55	41	141
Aug.	14	4.4	51	4.1	54	34	41	74
Sept.	37	11.6	72	5.7	49	77	58	104
Oct.	16	5.0	57	4.5	39	36	70	84
Nov.	19	6.1	104	8.2	70	89	148	109
Dec.	<u>41</u>	13.2	<u>134</u>	10.6	<u>93</u>	<u>134</u>	<u>163</u>	<u>147</u>
Total	315	100.0	1,262	100.0	892	1,161	1,363	1,630
- thousand dollars -								
Value	51		156		102	143	167	214
- cents per pound -								
Unit Cost	16.1		12.4		11.4	12.3	12.2	13.2

Source: Customs documents, tabulated by Statistics Canada.

Watercress: Imports by Country of Origin, 1966-1975

<u>Year</u>	<u>United States</u>	<u>France</u>	<u>Chile</u>	<u>Mexico</u>	<u>Trinidad Tobago</u>	<u>Total</u>
- thousand pounds -						
1966	79	-	1	-	-	79
1967	158	-	-	-	-	158
1968	222	-	-	-	-	222
1969	427	-	-	*	-	428
1970	688	-	-	-	-	688
Average 1966-70	315	-	*	*	-	315
1971	892	-	-	-	-	891
1972	1,143	-	-	1	18	1,161
1973	1,353	-	-	*	9	1,363
1974	1,629	1	-	-	1	1,630
1975	1,976	-	-	*	*	1,977
Average 1971-75	1,399	*	-	*	6	1,405

Source: Customs documents, tabulated by Statistics Canada.

OTHER VEGETABLES

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OTHER VEGETABLES

In addition to the vegetables covered above, each of which is specifically named in the Canadian Customs Tariff, there are a wide variety of plant products which are, fresh in their natural state, used as foodstuffs in various parts of the world. Some of these are grown, in greater or smaller amounts, in Canada; others are imported, in varying amounts, for consumption by all Canadians, or in some instances, for use in ethnic cookery. There are also, undoubtedly, many vegetables which are not grown in Canada due to the absence of suitable climatic conditions and are not imported because of perishability or lack of demand. It is not proposed to attempt an exhaustive list of "other" vegetables. A few of the more important ones will be discussed to the extent that statistics, usually very limited, are available, while others may be cited as examples as various points are discussed.

Virtually the only data available respecting most "other vegetables" are those contained in the unloads data for 12 principal Canadian markets, published by Agriculture Canada. Figures for the years 1972 to 1974 are given in Table 1. The absence of a vegetable from the list does not indicate that it is not consumed in Canada. Further, there is known to be Canadian production of some of the vegetables for which all reported unloads were of imported produce only, such as kohlrabi and salsify.

The only production data available are those published by the Province of British Columbia for "Chinese vegetables" (defined as including bok-choy, gai-lan, sue-choy, wong-bok, foo-gar and moh-gar), for squash, vegetable marrow and pumpkins (combined except for the period 1967-71), and for "other vegetables" (defined as including witloof, kohlrabi, kale, romaine, leeks, salsify, endives, citron, yucca melon, garlic, eggplant, broad beans, summer turnips and leaf lettuce. The "other vegetables" include a number of products already dealt with separately in this report, and even certain melons which are, for the purposes of this Reference, considered with fruits. Further, not all Chinese vegetables are properly admissible under the tariff provision for vegetables, n.o.p. The British Columbia data are presented in Appendix Tables 1, 2, and 3.

Import and export figures are available only in rare instances; Canadian import statistics are available for rappini, and there are United States figures for imports and exports of garlic and for imports into that country of squash.

Apart from those prices that can be calculated from trade statistics, there are almost no farm value figures available for Canadian produce and only limited data for the United States. Wholesale-to-retail prices at principal Canadian markets can be obtained for those crops where there are unloads data, but only when meaningful comparisons can be made are these included in the appendix tables.

U.S. production figures are available only for garlic.

Table 1: Other Vegetables: Domestic and Imported Unloads, 1972-1974

	1972		1973		1974		Average 1972-74		Imports as % of Total 1972-1974
	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	Dom.	Imp.	
		-	'000	lb.					
Anise	-	2,280	-	2,130	-	2,291	-	2,234	100.0
Bok-choy	-	17	-	14	-	42	-	24	100.0
Chinese vegetables	1,009	2,597	-	2,625	1,413	3,681	1,197	2,968	71.3
Sub-total (a)	1,009	2,614	1,170	2,639	1,413	3,723	1,197	2,992	71.4
Cardone	-	92	-	99	-	59	-	83	100.0
Chard	15	49	2	60	1	12	6	40	87.0
Swiss chard (b)	-	11	-	26	-	86	-	41	100.0
Sub-total	15	60	2	86	1	98	6	81	93.1
Chives	55	-	47	-	34	-	45	-	-
Collard	-	11	-	27	-	42	-	27	100.0
Dandelion	-	1,344	12	1,079	-	1,119	4	1,181	99.7
Dill	6	20	-	54	12	120	6	65	91.5
Fiddleheads	4	-	9	-	7	-	7	-	-
Garlic	11	1,317	62	1,395	36	1,712	36	1,475	97.6
Kohlrabi	-	10	-	41	-	25	-	25	100.0
Leeks	3,078	368	2,753	653	2,391	1,079	2,741	700	20.3
Napa (d)	-	-	-	1	-	2	-	1	100.0
Rabiote	4	-	-	-	-	-	1	-	-
Rappini	105	2,743	-	3,381	-	3,246	35	3,123	98.9
Salsify	-	-	-	-	-	1	-	*	100.0
Pumpkin	5,107	54	7,573	32	3,665	390	5,448	159	2.8
Squash	5,191	4,922	8,036	5,003	5,687	6,975	6,305	5,633	47.2
Vegetable marrow	576	9	315	33	373	10	421	17	3.9
Zucchini	397	514	277	592	328	546	334	551	62.3
Sub-total (c)	11,271	5,499	16,201	5,660	10,053	7,921	12,508	6,360	33.7
Total	15,558	16,358	20,256	17,245	13,947	21,438	16,586	18,347	52.5

(a) Bok-choy and Chinese vegetables.

(b) Chard and Swiss chard.

(c) Pumpkin, squash, vegetable marrow and zucchini.

(d) A Chinese cabbage.

Source: Agriculture Canada.

RAPPINI

This name is applied to small turnip plants with no bulb development which are pulled by hand and marketed, principally for the greens, with the roots attached. The unloads data indicate that there has been some Canadian production, but this would be limited in that rappini is derived from the turnip (Brassica rapa) and not the rutabaga (B. napobrassica) which is more commonly grown in Canada.

As indicated by the unloads data, the vast bulk of the Canadian demand is met by imports, almost entirely from the United States, although in some years Mexico has supplied small quantities, and in 1974 a very small quantity of rappini was imported from Trinidad and Tobago. Particulars of imports by country of origin are given in Appendix Table 4. Imports more than doubled between 1967-70 and 1971-75, indicating an increased demand.

As noted in Appendix Tables 5 and 6, imports of rappini are mainly into the central region and principally into Ontario. The peak months for imports are January and February, with significant amounts also entering in December and March. There are virtually no imports during the summer, with none recorded in any year in August, as the plant must be pulled before it flowers. In the one year for which Canadian production was reported, in Quebec, most of the unloads were in the period August to October.

CHINESE VEGETABLES

This category includes a wide range of vegetables, storable and non-storable, used in Chinese cooking. These would be consumed both in fresh form and in processed form, but no particulars are available beyond those already cited, i.e., the unloads data and production in British Columbia. These vegetables are known to be grown in Ontario, Manitoba, Saskatchewan, and British Columbia, but considerable quantities are imported, largely from the United States.

CHIVES, GARLIC AND LEEKS

These three vegetables are members of the lily family, belonging to the same genus as onions. Chives (Allium schoenoprasum) and garlic (A. sativum) are used principally as flavourings, while leeks (A. porrum) are used as a vegetable and a flavouring. All three vegetables are sold on the fresh market, and garlic and leeks, at least, are used in processing. Garlic and leeks are storable vegetables.

Garlic is known to be produced in Quebec, Ontario, and Manitoba and is marketed between August and November. Canadian grown leeks are marketed in all months of the year, although the quantities available from domestic production are very limited in the spring months. Leeks are grown in Quebec, Ontario, Manitoba, and British Columbia. The only reported unloads of chives were between May and October in Quebec, but this vegetable can be grown in other parts of the country.

As indicated in Table 1, for the years 1972-74, all reported unloads of chives were of domestic origin, as were nearly four-fifths of the leeks. On the other hand, imports supplied 97.6 per cent of the garlic. According to the unloads data, California and Mexico are the major sources of garlic, although there are also small imports from a number of other states and from overseas sources such as Italy, Spain, Taiwan, Peru, and Argentina. California and New Jersey are the major sources of imported leeks, with smaller quantities coming from several other states and from France and Mexico.

There are no published Canadian trade statistics for any of these crops. The United States, however, publishes figures for exports and imports of garlic, for which there is two-way trade with Canada. The available figures are presented in Appendix Tables 7a and 7b, which show considerable variation from year to year in quantities and unit values. As might be expected, exports from the United States to Canada far exceed imports from this country.

Garlic is the only one of these products for which U.S. production data are available, and these relate only to California (see Appendix Table 8). It is interesting to note the increase in value of this product at various levels of trade; in 1974, the average farm-gate value in California was 12.2 cents per pound, the unit value of exports averaged 22.8 cents, the delivered value in Toronto, based on a Tariff Board survey, was about 33-39 cents, and the wholesale-to-retail price ranged between 39 and 62 cents.

Price comparisons between domestic and imported produce are available only for leeks, and these only at the wholesale-to-retail level. The comparisons are given in Appendix Table 9. The data suggest that imports are limited when domestic produce is available but when both are offered at the same time, the former usually command a premium.

SQUASHES AND PUMPKINS

These terms are applied to a number of varieties of the species Cucurbita pepo, C. moschata and C. maxima. They are sometimes divided into summer squashes (C. pepo, usually) and winter squashes (the other species), but these terms are misleading in that summer squashes (usually those varieties used immature as table vegetables) are available in the winter, while winter squashes (those used ripe as a vegetable or in pies) are on the market in late summer and the fall. Certain squashes have readily recognized names which tend to be limited to specific varieties, e.g., vegetable marrow and zucchini (which are summer squashes) and pumpkins, butternut squash and acorn squash (which are winter varieties). Many other names can be cited. Winter squashes are more storable than summer squashes.

Considerable quantities of various types of squashes are sold on the fresh market in Canada, with most requirements of pumpkin and vegetable marrow being met from domestic sources. In most parts of the country imported produce is primarily sold when domestic supplies cannot be obtained, either directly from the field or, in the case of squash, from storage. Few price comparisons can be made, but

generally speaking, domestic produce when available obtained lower prices than imports, but there were only very few occasions when both were available at the same time. Prices for pumpkins are available for only a limited period with prices for imported pumpkins available only for Winnipeg; in that market they sold for 10.5 cents per pound, $1\frac{1}{2}$ cents less than Manitoba pumpkins. However, in other markets, domestic pumpkins were quoted at much lower prices.

Considerable quantities of pumpkins, far in excess of fresh market sales, are processed almost entirely from domestic production. Similarly, it is known that squash is canned, but no details are available as to the extent that the demand for squash for processing is met from domestic sources. Table 2 gives some data obtained from the Ontario Vegetable Growers Marketing Board with respect to squash and pumpkins grown for processing between 1964 and 1972. The figures indicate no marked trend in production, but show some increase in average price. The negotiated price for 1974 was \$23.00 per ton, or 1.15 cents per pound, for pumpkins and \$25.00 per ton, or 1.25 cents per pound for squash. These figures compare with an overall average of 0.70 cent per pound in 1973.

Pumpkins and squash are grown in most provinces, but production of zucchini appears to be largely limited to Ontario and Quebec, while vegetable marrow is grown mainly in Ontario, Manitoba, and British Columbia.

Table 2: Pumpkins and Squash: Production for Processing,
Ontario, 1964-1973

<u>Year</u>	<u>No. of Growers</u>	<u>Production</u> '000 lb.	<u>Gross Returns</u> \$'000	<u>Average Price</u> ¢ per lb.
1964	199	23,208	119	0.51
1965	198	23,768	131	0.55
1966	208	38,626	224	0.58
1967	122	27,702	171	0.62
1968	75	13,544	86	0.63
1969	88	29,100	184	0.63
1970	79	26,200	165	0.63
1971	73	30,744	193	0.63
1972	55	13,352	89	0.67
1973	83	23,254	162	0.70

Source: Ontario Vegetable Growers Marketing Board.

MISCELLANEOUS VEGETABLES

With respect to the vegetables not discussed above, for which there are data on domestic unloads, the provinces indicated below are the main location of production in Canada.

Chard	-	Nova Scotia
Dandelions	-	Quebec
Dill	-	Quebec
Fiddleheads	-	New Brunswick
Rabiola	-	Quebec

British Columbia is known to produce kohlrabi, kale and salsify.

Vegetables, n.o.p., are imported from a great many countries, but the principal source is the United States.

TARIFF CONSIDERATIONS

Fresh vegetables not more specifically named in the Customs Tariff are provided for under tariff item 8731-1, as follows:

	<u>B.P.</u>	<u>M.F.N.</u>	<u>Gen.</u>
Vegetables, fresh, in their natural state, the weight of the packages to be included in the weight for duty:			
8731-1 N.o.p.	Free	Free	30 p.c.

Apart from reductions in the M.F.N. rate, the only changes in this item, over the years, have been in its coverage, as more vegetables have been specifically named and thus excluded from the item. Prior to the United States Trade Agreement, which came into effect on January 1, 1936, the M.F.N. rate was 27½ p.c., and imports from the United States were subject to the General Tariff; by virtue of that Agreement, the M.F.N. rate became applicable to imports from that country and was reduced to 15 p.c. Under the Agreement with the United States which came into effect from January 1, 1939, it was further reduced to 10 p.c.; this rate was bound under GATT in 1948. The M.F.N. rate remained at 10 p.c. until the implementation of concessions made under the Kennedy Round; it was reduced to 8 p.c. on January 1, 1968, to 6 p.c. on January 1, 1969 and to Free on June 4, 1969. As there are no recorded imports under the General Tariff all imports under the item have been free of duty since that date.

The Tariff Schedules of the United States Annotated also make provision for unenumerated vegetables, but the coverage of the residual item is different. The U.S. tariff makes specific mention of dasheen, garlic, squash and chayote, each at their own rates of duty, none of which is named in the Canadian schedule, while the U.S. residual item covers artichokes, asparagus, broccoli, Brussels sprouts, parsley, rhubarb and watercress, all of which are specifically provided for in the Canadian Customs Tariff. Further and more significantly, the United States levies a duty under this item (numbered 137.85) of 25 per cent under the equivalent of the Most-Favoured-Nation Tariff and of 50 per cent under the equivalent of

the General Tariff. These rates are the same as those levied on corn-on-the-cob and higher than any other ad valorem rates in the vegetable schedule; they are also as high as, if not higher than, the ad valorem equivalent of most of the specific rates in the schedule.

With respect to vegetables now classified under tariff item 8731-1, the Horticultural Council proposed that new specific items be created for Chinese cabbage and for garlic, and that the successor item to 8731-1 be divided into two items, one to apply to vegetables, n.o.p., of a genus not grown and one to those of a genus grown in Canada.

The Council noted that Chinese cabbage, which is grown to some extent in Canada, is sometimes entered as cabbage, sometimes as lettuce, and sometimes as a vegetable, n.o.p., under items bearing different rates of duty. The Council proposed that the new item bear the same rate of duty as it proposed for cabbage, $1\frac{1}{4}$ cents per pound but not less than 20 p.c. or Free under all three tariffs, but suggested a shorter period for the application of seasonal duties, 30 weeks as opposed to the 40 weeks proposed for cabbage. The proposed period would certainly cover most, if not all, of the period during which Canadian grown Chinese cabbage is marketed, as indicated by the unloads data.

The Canadian Horticultural Council claimed that garlic production was increasing. It suggested an ad valorem rate of 20 per cent under the British Preferential and Most-Favoured-Nation Tariff and 30 per cent under the General Tariff, to be applicable all the year round. As noted above, the unloads data show Canadian grown garlic to be available, to the extent that it does supply the market, from August to November. It is, however, a storable crop that can, under optimum conditions, be stored for six to eight months.

With respect to "vegetables, n.o.p.," the Council argued that it is not "sound tariff policy" to provide duty-free entry under an unqualified "n.o.p." item. It claimed that this is not the usual practice in the Canadian Customs Tariff and further urged that this inhibited the development of new crops in Canada. Very few specifics were cited, but mention was made of the production in Canada of garlic, Chinese vegetables and squashes including zucchini and pumpkins, all of which had to compete with duty-free imports. The Council indicated that it had no interest in obtaining a duty on vegetables which are not and cannot be grown in Canada; for those of a genus not grown here, continued free entry was proposed. For the others, apart from Chinese cabbage, it was suggested that a rate of 20 p.c. be applied all year, regardless of whether the actual crop, as opposed to other crops of the same genus, was grown here and of the periods during which Canadian produce, either fresh from the field or out of storage, might be available.

There were no other specific representations relating to any of the vegetables now classified under tariff item 8731-1. However, the more general representations of the Consumers' Association of Canada, Canadian Importers Association Inc. and the National Farmers Union would be relevant.

The question of a method of making a distinction between vegetables grown and those not grown in Canada is a difficult one. The proposal that it be based on genus, a botanical term, appears to have some merit. However, this could result, for example, in making dutiable such crops as kale, kohlrabi and collards, which, if grown at all, are produced only in extremely limited quantities, because these are not only the same genus, but also varieties of the same species, as cabbage. Similarly, Swiss chard is a variety of the same species as beets. Further, there is not always firm agreement as to the botanical classification of plants. The Board can also foresee difficulties in establishing, if it should be necessary to do so, the extent to which the Canadian demand for vegetables of a specified genus is being met from a domestic production and that the production in large quantities of one species of a particular genus would automatically cover all other species, e.g., leeks, chives, garlic and Welsh onions, all of which belong to the same genus as onions, although admittedly, at least the first three of these are grown to some extent in Canada.

There are precedents for using "class or kind" in connection with vegetables. Between 1958 and 1968, the Customs Act contained a provision regarding the valuation of "any fresh fruit or vegetable of a class or kind produced in Canada." The Fruit, Vegetables and Honey Act refers, as well, to fruits and vegetables "of any kind not grown in Canada."

CONCLUSIONS

The Board feels that in certain cases there is merit in affording some protection to "other" vegetables grown in Canada. As leeks, and also various types of squashes and pumpkins are produced in considerable quantities, separate items are recommended for these. In view of the possible development of production of garlic, an item for this product is also recommended. This latter recommendation also makes it possible to recommend that garlic, which is known to be imported in small retail packages, be made subject to a packaging duty.

Chinese cabbage, also known as Chinese lettuce, is sometimes classified as cabbage, sometimes as lettuce and sometimes under the n.o.p. item. As it is known to be grown in Canada, the Board is recommending a separate tariff item for this product, with the same rates of duties as it has recommended for cabbage. The Horticultural Council proposed a seasonal duty period of 40 weeks capable of being split into two periods, for cabbage, but one of 30 weeks for Chinese cabbage. This latter proposal is being adopted by the Board.

For vegetables not specifically named in the Customs Tariff, the Board is recommending two items, based on made-in-Canada status. For "vegetables, n.o.p., of a class or kind produced in Canada," a nominal rate of duty is recommended. As these vegetables would vary greatly in value and seasonality, the proposed duty is an ad valorem rate. However, in order to facilitate free entry during the off-season, the Board recommends an amendment to the Customs Tariff to permit the suspension, by Ministerial Order, of the application of

this duty to any vegetable for such a period of time as may be prescribed in the order. Similar considerations apply to squashes and pumpkins, as various types become available from domestic production at different dates and for differing periods.

The establishment of seasonal duties on leeks and garlic may well affect the marketing periods for domestic produce. Consequently, pending the establishment of firm marketing periods for those products, the recommended mechanism for the suspension of the duty should be made applicable to the tariff items covering these products.

The Board recommends a nominal rate for the items for garlic, leeks, squashes of all kinds and vegetables, n.o.p., of a class or kind produced in Canada.

For vegetables not produced in Canada, the Board sees no reason for them to be made dutiable and therefore recommends continued free entry under all tariffs.

RECOMMENDATIONS

The Board recommends:

- A. That section 15 of the Customs Tariff be amended by adding a subsection (1)(c) that would provide for the suspension, by Ministerial Order, of the application of the ad valorem duties specified in tariff items 2, 3, 4, and 5 below, to any vegetable named in the order, for such a period of time as may be specified in the order.
- B. That Schedule "A" of the Customs Tariff be amended by deleting tariff item 8731-1 and inserting the following enumerations of goods and rates of duty:

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
1. Cabbage, Chinese, or Chinese lettuce per pound	Free	1½ cts. but not less than 15 p.c., or Free	1½ cts. but not less than 15 p.c., or Free

In any 12-month period ending 31st March, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 30 weeks, and the Free rate shall apply whenever the specific duty or ad valorem duty is not in effect.

	<u>British Prefer- ential Tariff</u>	<u>Most- Favoured- Nation Tariff</u>	<u>General Tariff</u>
2. Squashes of all kinds, of the genus <u>Cucurbita</u> , including pumpkins, vegetable marrow and zucchini	Free	5 p.c.	5 p.c.
3. Leeks	Free	5 p.c.	5 p.c.
4. Garlic	Free	5 p.c.	5 p.c.
<p>When the duty is not suspended by virtue of section 15(1)(c) of this Act and imported in pack- ages five pounds or less, each, see additional duty following item 8748-1.</p>			
5. N.o.p., of a class or kind produced in Canada	Free	5 p.c.	5 p.c.
6. N.o.p., of a class or kind not produced in Canada	Free	Free	Free

Squash, Marrow, Pumpkin: Acreage, Production, Average Yield, Farm Value and Farm Value per Pound, British Columbia, 1968-1974

	Fresh			Processed (Manufactured)			Total		
	Acre- age	Produc- tion '000 lb.	Farm Value ¢/lb.	Acre- age	Produc- tion '000 lb.	Farm Value ¢/lb.	Acre- age	Produc- tion '000 lb.	Farm Value \$
1968	157	1,810	5.1	16	679	0.9	173	2,489	98,426
1969	199	2,015	4.8	23	898	0.9	222	2,913	104,711
1970	218	1,997	4.6	16	686	0.9	234	2,683	97,932
Average 1968-70	191	1,941	4.8	18	754	0.9	210	2,695	100,356
1971	178	1,534	4.7	25	891	0.9	203	2,425	80,093
1972	194	1,920	4.7	38	746	1.2	233	2,666	99,678
1973	224	1,891	5.6	44	793	1.2	268	2,684	114,865
1974	115	2,150	5.8	27	534	1.4	142	2,684	131,178
Average 1971-74	178	1,874	5.2	34	741	1.2	212	2,615	106,454

Source: British Columbia Department of Agriculture.

Miscellaneous Vegetables: (a)
Acreage, Production, Average Yield, Farm Value and
Farm Value per Pound, British Columbia, 1968-1974

	Fresh			Processed (Manufactured)			Total				
	Acre- age	Produc- tion '000 lb.	Farm Value \$ ¢/lb.	Acre- age	Produc- tion '000 lb.	Farm Value \$ ¢/lb.	Acre- age	Produc- tion '000 lb.	Farm Value \$	Average Yield lb.	
1968	2,362	22,553	4.9	1,105,097	-	-	-	2,362	22,553	1,105,097	9,548
1969	860	2,745	7.7	211,691	-	-	-	860	2,745	211,691	3,192
1970	1,201	2,831	7.4	210,716	-	-	-	1,201	2,831	210,716	2,357
Average 1968-70	1,474	9,376	5.4	509,168	-	-	-	1,474	9,376	509,168	6,361
1971	1,461	4,067	6.4	258,511	-	-	-	1,461	4,067	258,511	2,784
1972	420	1,573	8.4	131,420	-	-	-	420	1,573	131,420	3,745
1973	439	1,716	11.4	195,360	-	-	-	439	1,716	195,360	3,909
1974	397	1,551	12.3	190,993	-	-	-	397	1,551	190,993	3,907
Average 1971-74	679	2,227	8.7	194,071	-	-	-	679	2,227	194,071	3,280

(a) Miscellaneous crops include witloof, kohlrabi, kale, romaine, leek, salsify, endive, citron, zucca melon, garlic, eggplant, broad beans, summer turnips, leaf lettuce and others.

Source: British Columbia Department of Agriculture.

Appendix Table 4

Rappini: Imports by Country of Origin, 1967-1975^(a)

<u>Year</u>	<u>United States</u>	<u>Mexico</u>	<u>Others</u>	<u>Total</u>
- thousand pounds -				
1967	1,052	-	-	1,052
1968	1,256	-	-	1,256
1969	938	-	-	938
1970	1,274	-	-	1,274
Average 1967-70	1,130	-	-	1,130
1971	1,974	-	-	1,974
1972	2,712	4	-	2,716
1973	2,973	23	-	2,995
1974	2,823	36	*	2,860
1975	3,174	-	-	3,174
Average 1971-75	2,731	13	*	2,744

(a) Previous to 1967 rappini was included in class 91-99, Vegetables, n.o.p.

Source: Statistics Canada.

Appendix Table 5

Rappini: Imports by Province and Region, 1967-1975^(a)

	<u>Average 1967-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -						
Atlantic Region	-	-	-	3	1	-
Nfld.	-	-	-	-	-	-
P.E.I.	-	-	-	-	-	-
N.S.	-	-	-	3	-	-
N.B.	-	-	-	*	1	-
Central Region	1,124	1,958	2,651	2,926	2,814	3,042
Que.	299	519	701	865	544	884
Ont.	826	1,439	1,950	2,062	2,269	2,158
Western Region	6	16	65	66	45	132
Man.	2	5	11	22	28	51
Sask.	-	-	-	-	-	-
Alta.	1	-	2	-	-	*
B.C.	3	11	51	44	17	81
Canada	1,130	1,974	2,716	2,995	2,860	3,174

(a) Previous to 1967 rappini was included in class 91-99, Vegetables, n.o.p.

Source: Statistics Canada.

Rappini: Imports by Month, 1967-1975^(a)

<u>Month</u>	<u>Average 1967-70</u>	<u>%</u>	<u>Average 1971-75</u>	<u>%</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
- thousand pounds -								
Jan.	299	26.5	654	23.9	749	636	748	783
Feb.	286	25.3	619	22.6	637	691	637	721
Mar.	204	18.0	465	16.9	443	563	468	551
Apr.	52	4.6	209	7.6	236	235	184	220
May	40	3.5	139	5.1	146	146	97	175
June	17	1.5	33	1.2	26	33	9	50
July	-	-	2	0.1	-	-	-	9
Aug.	-	-	-	-	-	-	-	-
Sept.	-	-	3	0.1	-	*	5	8
Oct.	2	0.2	17	0.6	2	30	28	21
Nov.	32	2.9	135	4.9	174	181	136	148
Dec.	<u>199</u>	<u>17.6</u>	<u>469</u>	<u>17.1</u>	<u>302</u>	<u>482</u>	<u>548</u>	<u>488</u>
Total	1,130	100.0	2,744	100.0	2,716	2,995	2,860	3,174

(a) Previous to 1967, rappini was included in class 91-99, Vegetables, n.o.p.

Source: Statistics Canada.

Appendix Table 7a

Garlic: United States Imports from Canada, 1966-1975

<u>Year</u>	<u>Quantity</u> lbs.	<u>Value</u> \$	<u>Unit</u> <u>Value</u> ¢/lb.
1966	-	-	-
1967	-	-	-
1968	-	-	-
1969	60,000	14,655	24.4
1970	-	-	-
Average 1966-70	12,000	2,931	24.4
1971	30,002	10,614	35.4
1972	18,818	4,140	22.0
1973	18,450	12,300	66.7
1974	2,900	1,653	57.0
1975	-	-	-
Average 1971-75	14,034	5,741	40.9

Source: U.S. Department of Commerce.

Appendix Table 7b

Garlic: United States Exports to Canada, 1972-1975^(a)

<u>Year</u>	<u>Quantity</u> lbs.	<u>Value</u> \$	<u>Unit</u> <u>Value</u> ¢/lb.
1972	790,160	281,112	35.6
1973	487,252	197,118	40.5
1974	482,120	109,758	22.8
1975	617,647	212,275	34.4
Average 1972-75	594,295	200,066	33.7

(a) No separate class previous to 1972.

Source: U.S. Department of Commerce.

Appendix Table 8

Garlic^(a): Acreage, Production, Yield per Acre, Farm Value and Farm Value per Pound, United States,^(b)
1966-1974

	<u>Average 1966-70</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>Average 1971-74</u>
- Acreage -						
Total	5,440	3,700	5,100	6,900	9,000	6,175
- Production '000 lb. -						
Total	65,200	48,100	66,300	89,700	117,000	80,275
- Average Yield lb. -						
Total	11,985	13,000	13,000	13,000	13,000	13,000
- Farm Value \$'000 -						
Total	5,743	4,485	6,525	10,522	14,265	8,949
- Farm Value ¢ per lb. -						
Total	8.8	9.3	9.8	11.7	12.2	11.1

(a) Includes production for fresh market and processing.

(b) California only.

Source: U.S. Department of Agriculture.

Leeks: Wholesale to Retail Prices at Montreal, Toronto, Winnipeg and Vancouver, 1974

Week Ending	Montreal			Toronto			Winnipeg		Vancouver	
	Florida	N.J.	Que.(a)	Cal.	N.J.	Ont.	Cal.	B.C.	Cal.	B.C.
	- crt., 36's, 18 lb. -		bchd. loose	bchd., 2 doz., 20 lb.	- bchd., 1 doz. - - 10 lb. -		ctn., 30 lb.		- crt. & ctn. -	
			- 6 lb. -	- cents per pound -						
Jan. 4			39.7			41.3				
11			39.7			41.3				
18			39.7							
25			39.7							
Feb. 1			35.5							
8			31.3							
15			31.3	49.4	62.5				40.0	
22			31.3	45.7	63.8				38.5	
Mar. 1			31.3	49.4					38.5	
8			31.3	49.4		41.3			38.5	
15				49.4		41.3			38.5	
22				49.4		38.8			38.5	
29				47.3		38.8			38.5	
Apr. 5		29.2		48.2		38.8			38.5	
12		34.7				38.8			39.5	
19		35.4				38.8			39.5	
26						38.8			39.5	
May 3					66.3				39.5	34.0
10					66.3				39.5	34.0
17					53.8				39.5	34.0
24					51.3				39.5	37.5
31					51.3				39.5	37.5
June 7	29.9				51.3				39.5	37.5
14	28.5				47.3				39.5	37.5
21	42.4				46.3				39.5	40.0
28	41.0				51.3					
	39.6				51.3					

Appendix Table 9 (concl.)

Leeks: Wholesale to Retail Prices at Montreal, Toronto, Winnipeg and Vancouver, 1974

Week Ending	Montreal			Toronto		Winnipeg		Vancouver	
	Florida - crt., 36's, 18 lb. -	N.J.	Que.(a) bchd. loose - 6 lb. -	Cal. bchd., 2 doz., 20 lb.	N.J. - bchd., 1 doz. - - 10 lb.	Cal. ctn., 30 lb.		Cal. - crt. & ctn. -	B.C.
July	5		18.7			28.3			40.0
	12		22.8			31.7			40.0
	19		27.8			31.7			40.0
	26		22.8						40.0
Aug.	2		18.8			45.0			40.0
	9		18.8			45.0			40.0
	16		18.8			45.0			40.0
	23		18.8			45.0			40.0
Sept.	30		18.8			50.0			40.0
	6		18.8			53.0			40.0
	13		23.0			55.0			40.0
	20		27.2						40.0
Oct.	27		27.2			21.3			40.0
	4		27.2			30.3			40.0
	11		27.2			31.3			40.0
	18		23.0			22.5			40.0
Nov.	25		26.3			28.8			40.0
	1		27.2			38.3			40.0
	8		27.2			38.8			40.0
	15		27.2			26.3			35.0
Dec.	22		27.2			41.8			37.5
	29		27.2			43.8			37.5
	6		27.2			43.8			37.5
	13		28.8			47.0			40.0
	20		39.7			46.5			
	27		36.7			46.5			

(a) Quoted as medium, from Jan. 4 to Mar. 1 inclusive.

Source: Agriculture Canada.

Appendix Table 10 (concl.)

Week Ending	Halifax			Montreal		Toronto		Winnipeg		Vancouver	
	Florida	40 lb. (a)	N.S. bag, 50 lb.	Florida	N.J. - crt. or ctn., bu., 45 lb. -	Florida w/b crt., 45 lb.	Ontario bu. hpr., 45 lb.	Cal. bag	Man. ctn.	Wash. - carton -	B.C.
July	5	24.5	24.4								
	12	19.7	30.0	20.3	20.3						
	19		30.0								
	26		30.0								
	30		30.0								
Aug.	2										
	9										
	16										
	23										
	30										
Sept.	6										
	13										
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Oct.	11										
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Nov.	15										
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(a) Quotations of 45 lb. from March 22 to April 19 inclusive.
(b) New Jersey quotations.

Zucchini: Weekly Wholesale to Retail Prices at Montreal, Toronto, Winnipeg and Vancouver, 1974

Week Ending	Montreal		Toronto		Winnipeg		Vancouver		
	Mex.	Fla.	Que.	Fla.	N.J.	Ont.	Mex.	Cal.	B.C.
	- $\frac{1}{2}$ bu., 21 lb. -		crt., 20 lb.	- ctn. or crt., 25 lb. -		6 qt. bskt., 9 lb.	- crt., 25 lb. -	ctn. -	lug
Jan. 4									
11	28.3			25.5					37.5
18	29.8			25.7					37.0
25	29.8			25.9					29.5
Feb. 1	31.1			26.3					23.5
8	34.5			26.3					34.0
15	38.2			27.5					33.5
22	36.9			30.4			29.5		34.5
Mar. 1	30.5			31.7			33.7		32.0
8	31.0			25.7			31.5		36.5
15	33.1			25.5			31.5		32.0
22	34.5			32.5			30.5		37.5
29	34.5			37.5			32.0		32.0
Apr. 5				37.5			32.5		47.0
12				37.5			36.5		
19				39.5			38.0		
26				31.1			42.5		
May 3				25.5			43.0		
10				25.5			43.0		
17				21.9			35.0		
24				21.5			32.0		
31				21.5			28.0		
June 7				19.5			28.0		
14				19.5			28.0		
21				15.9			21.5		
28				18.5(c)			21.5		
				17.1					
				21.3(d)					
				18.5(c)					

Appendix Table 12

Squash: (a) United States Imports from Canada, 1966-1974

<u>Year</u>	<u>Quantity</u> lb.	<u>Value</u> \$	<u>Unit</u> <u>Value</u> ¢/lb.
1966	-	-	-
1967	-	-	-
1968	17,758	3,290	18.5
1969	196,030	11,475	5.9
1970	109,482	8,183	7.5
Average 1966-70	64,654	4,590	7.1
1971	-	-	-
1972	8,734	1,036	11.9
1973	75,320	8,837	11.7
1974	41,925	2,130	5.1
Average 1971-74	31,495	3,001	9.5

(a) Fresh, chilled or frozen.

Source: U.S. Department of Commerce.



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